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Noelle M. Holladay 859.288.7633 nholladay@wyattfirm.com

November 24, 2003

Prop Box RECEIVED

Mr. Thomas M. Dorman Executive Director Public Service Commission 211 Sower Boulevard P.O. Box 615 Frankfort, KY 40602

NOV 2 4 2003

PUBLIC SERVICE

RE:

Petition of Southeast Telephone, Inc., Case No. 2003-00115

Dear Mr. Dorman:

Enclosed please find Responses to Supplemental Data Requests (with redacted Exhibits), along with a Petition for Confidential Treatment (with one copy of unredacted Exhibits), filed on behalf of Kentucky ALLTEL, Inc. ("ALLTEL") in the above-referenced case. An original and eleven (11) copies of the pleadings (with redacted exhibits) are enclosed. Please file-stamp the extra copy and return it to me in the self-addressed, pre-stamped envelope I have enclosed for your convenience.

Thank you for your cooperation in this matter. Please do not hesitate to contact me with any questions you may have.

Sincerely,

WYATT, TARRANT & COMBS, LLP

Molle M. Holladay

Noelle M. Holladay

Enclosures

cc:

Amy Dougherty (w/enclosures)
Jonathon Amlung (w/enclosures)
Kimberly Bennett (w/o enclosure)

RECEIVED

COMMONWEALTH OF KENTUCKY

NOV 2 4 2003

PUBLIC SERVICE

| REFORE | THE | PURI. | IC SERVICE | COMMISSION |
|--------|-----|---------------|------------|------------|
| | | 1 1 1 1 1 1 1 | | |

| Petition of Southeast Telephone, Inc., for |) | |
|--|---|-----------------------|
| Arbitration of Certain Terms and |) | |
| Conditions of the Proposed Agreement with |) | |
| Kentucky ALLTEL, Inc., Pursuant to the |) | Docket No. 2003-00115 |
| Communications Act of 1934, as amended |) | |
| By the Telecommunications Act of 1996 | ĺ | |

PETITION FOR CONFIDENTIAL TREATMENT

Kentucky ALLTEL, Inc. ("Kentucky ALLTEL") moves the Public Service Commission of Kentucky ("Commission") pursuant to K.R.S. §61.878(1)(c)(1) and 807 KAR 5:001, Section 7 to accord confidential treatment to Exhibits 1, 4, and 5(c) through 5(r) (collectively, the "Exhibits") to Kentucky ALLTEL's Responses to the Supplemental Data Requests arising from the hearing in this matter on November 13, 2003, and in support thereof states the following:

- 1. On November 13, 2003 in this proceeding, the Commission conducted a hearing in this matter out of which arose supplemental data requests with respect to customer migration information, call detail records, and switch specifications and upgrades.
- 2. In order to adequately respond to the supplemental data requests, Kentucky ALLTEL prepared the Exhibits, redacted copies of which are being filed with Kentucky ALLTEL's Responses and an unredacted copy of which is being filed under seal with this Petition.
- 3. Kentucky ALLTEL developed the Exhibits at its own expense and devoted substantial resources to compiling the underlying data making up the Exhibits. With respect to the call detail records, the information includes customer proprietary information and with

respect to the switch specifications and upgrade estimates, the information contains information that was revealed to Kentucky ALLTEL on a proprietary basis from the manufacturer. Exhibits are treated as highly confidential by Kentucky ALLTEL and its affiliates. The Exhibits contain information that has not been released publicly and is disclosed internally within Kentucky ALLTEL on a need-to-know basis only and to the Commission only when required and only pursuant to a confidentiality agreement or enforceable order according the information confidential treatment. Kentucky ALLTEL employs all reasonable measures to protect the confidentiality of the proprietary information in the Exhibits and to guard against inadvertent, unauthorized disclosure. Further, Kentucky ALLTEL is not entitled to publish such competitively sensitive information on behalf of the customers or manufacturers.

4. K.R.S. §61.878(1)(c)(1) provides in pertinent part:

The following public records are excluded from the application of ...[the Open Records Act] and shall be subject to inspection only upon order of a court of competent jurisdiction ...

- (c)1. ...records confidentially disclosed to an agency or required by an agency to disclosed to it, generally recognized as confidential or proprietary, which if openly disclosed would permit an unfair commercial advantage to competitors of the entity that disclosed the records.
- 5. Public disclosure of the Exhibits would provide other entities an unfair competitive advantage by affording them access to customer and manufacturer information. Such information contained in the Exhibits is generally considered confidential and proprietary in the telecommunications industry.
- 6. The Exhibits also protected from disclosure pursuant to K.R.S. §61.878(1)(c)(2)(c) as confidential and proprietary records disclosed to the Commission in conjunction with the regulation of a commercial enterprise.

7. Filed with this Petition is one copy of the Exhibits that includes those portions

that are confidential. Also filed are ten copies of the Exhibits with the confidential information

redacted.

8. Due to the highly confidential nature of the Exhibits as set forth herein, any

diskette containing an electronic form of the unredacted Exhibits should not be duplicated under

any circumstance and should be viewed only from the original diskette.

WHEREFORE, Kentucky ALLTEL respectfully requests that the Exhibits be accorded

confidential treatment and be placed in the confidential files of the Commission, that viewing of

the diskette containing the unredacted Exhibits be restricted to only Commission and Staff

involved in this proceeding, that no party to this proceeding including Commission Staff be

permitted to duplicate any diskette containing the unredacted Exhibits, and that Kentucky

ALLTEL be accorded all other relief to which it may be entitled.

Dated:

November 24, 2003.

3

Respectfully submitted,

KENTUCKY ALLTEL, INC.

James H. Newberry, Jr.

James H. Newberry, Jr. Noelle M. Holladay

Wyatt, Tarrant & Combs, LLP

Attorneys for Kentucky ALLTEL, Inc.

1600 Lexington Financial Center

Lexington, KY 40507-1746 Telephone: (859) 233-2012 Facsimile: (859) 259-0649

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing has been sent this 24th day of November, 2003 by first class mail, postage prepaid, unless otherwise noted, to the following parties of record in this matter:

Jonathon N. Amlung, Esq. Attorney for Southeast Telephone Company 1000 Republic Building 429 W. Muhammed Ali Blvd. Louisville, KY 40202

VIA HAND DELIVERY:

Amy Dougherty, Esq. Public Service Commission 211 Sower Blvd. Frankfort, KY 40602

Noelle M. Holladay

30312189.1

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

| Petition of Southeast Telephone, Inc., for) | |
|--|-----------------------|
| Arbitration of Certain Terms and | |
| Conditions of the Proposed Agreement with) | |
| Kentucky ALLTEL, Inc., Pursuant to the | Docket No. 2003-00115 |
| Communications Act of 1934, as amended) | |
| by the Telecommunications Act of 1996) | |

KENTUCKY ALLTEL, INC.'S RESPONSES TO SUPPLEMENTAL DATA REQUESTS

In response to supplemental data requests arising from the hearing on this matter on November 13, 2003, before the Kentucky Public Service Commission ("Commission"), Kentucky ALLTEL, Inc. ("Kentucky ALLTEL") submits the following:

SUPPLEMENTAL DATA REQUEST NO. 1: Please identify and explain the reasons why some customers of Kentucky ALLTEL, Inc. have disconnected their local exchange telephone service.

KENTUCKY ALLTEL RESPONSE NO. 1: When a customer disconnects a line from Kentucky ALLTEL, Kentucky ALLTEL requests that the customer complete an "exit interview". If the customer completes this "interview" then Kentucky ALLTEL is able to determine why the customer disconnects. Not all customers complete this interview and the interview is limited to only R1 lines and B1 lines. The numbers of disconnects compiled for the Commonwealth of Kentucky are shown on Exhibit 1.

SUPPLEMENTAL DATA REQUEST NO. 2: Please Provide the supporting documentation for the per-line revenue calculations reflected in Table 4 of Steve Mowery's Direct Testimony.

KENTUCKY ALLTEL RESPONSE NO. 2: Please see Exhibit 2 for supporting documentation.

<u>SUPPLEMENTAL DATA REQUEST NO. 3</u>: Please explain how Kentucky ALLTEL calculated its UNE-P rate.

KENTUCKY ALLTEL RESPONSE NO. 3: Please see Exhibit 3 for an explanation of how the UNE-P rate was calculated.

SUPPLEMENTAL DATA REQUEST NO. 4: Please provide information regarding the Nebraska Public Service Commission's ("Nebraska Commission") proceeding with respect to approval of an Interconnection Agreement between ALLTEL Nebraska, Inc. ("ALLTEL Nebraska") and Nebraska Technology & Telecommunications, Inc. ("NT&T").

KENTUCKY ALLTEL RESPONSE NO. 4: On August 1, 2001, Nebraska Technology and Telecommunications, Inc. ("NT&T"), a CLEC, issued a bona fide request to ALLTEL Nebraska to commence negotiations of a new interconnection agreement. ALLTEL and NT&T were able to voluntarily resolve all but approximately six issues. On January 7, 2002, NT&T filed for arbitration. The unresolved issues generally concerned appropriate pricing methodology of UNE and UNE-P.

The Arbitrator issued her final decision on February 26, 2003 determining each of the six issues consistent with ALLTEL Nebraska's testimony. The Nebraska Commission, on May 20, 2003, issued its order approving the Arbitrator's Final Decision and directing that the final interconnection agreement be filed on or before June 3, 2003.

The UNE-P rate approved by the Nebraska Commission is \$37.01 compared to the Kentucky UNE-P rate of \$25.51 as shown on Exhibit 3. ALLTEL is not presently provisioning any UNE-P service as certain system changes or enhancements are necessary. Additionally, any provision of UNE-P in Nebraska will be subject to changes brought about by the nine-month impairment analysis in the Nebraska TRO proceeding and subject to ALLTEL's ability to request modification or suspension under §251(f)(2) of the 1996 Telecommunications Act of any potential obligation to provide UNE-P.

<u>SUPPLEMENTAL DATA REQUEST NO. 5</u>: Please provide the call detail records referenced in Timothy Wagner's Direct Testimony.

KENTUCKY ALLTEL RESPONSE NO. 5: Please see Exhibit 4 for the call detail records.

SUPPLEMENTAL DATA REQUEST NO. 6: Please provide the switch and upgrade specifications with respect to the Excel switch owned and operated by Southeast Telephone, Inc. ("SETel").

KENTUCKY ALLTEL RESPONSE NO. 6: Attached as Exhibits 5(a) and 5(b) are overviews of the technical specifications and capabilities of the SETel switch. These were obtained from the switch manufacturer's website. Exhibit 5(c) is an overview of the technical specifications and capabilities of Class 5 capability that may or may not presently exist in the SETel switch, but which was described by the Parties during the hearing. A quote associated with such an upgrade, assuming it does not currently have such full capability, is also included as Exhibit 5(d). Attached as Exhibits 5(e) through 5(r) are the first twenty pages of further technical specifications with respect to the SETel switch, including, but not limited to, SS7, ISDN, DS3 line card switchover, Internet, and

wireless, capabilities. These latter documents are extremely voluminous and, therefore, have not been provided in their entirety; however, if any or all of these documents are needed by the Commission, they can and will be made available.

SUPPLEMENTAL DATA REQUEST NO. 7: Please provide the Merrill Lynch report referenced in Steve Mowery's Direct Testimony.

KENTUCKY ALLTEL RESPONSE NO. 7: Please see Exhibit 6 for the report.

Respectfully submitted,

KENTUCKY ALLTEL, INC.

James H. Newberry, Jr.

Noelle M. Holladay

Wyatt, Tarrant & Combs, LLP

Attorneys for Kentucky ALLTEL, Inc.

1600 Lexington Financial Center

Lexington, KY 40507-1746 Telephone: (859) 233-2012

Facsimile: (859) 259-0649

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VIA HAND DELIVERY:

Amy Dougherty, Esq.
Public Service Commission
211 Sower Blvd.
Frankfort, KY 40602

Mille M. Holladay Noelle M. Holladay

30312177.1

Exhibit 1

REDACTED IN ITS ENTIRETY

Exhibit 2

Table 4 Supporting Document

| Line 4 | \$184,865,430.00 | \$15,405,452.50 | \$29.45 |
|--------|---------------------------------------|-----------------|------------------------------------|
| | G/L Accounts | Divided by 12 | Divided by access Lines of 523,141 |
| | 5001.7008 - 5001.8504 | | |
| | 5050.7100 - 5050.8250 | | |
| | 5060.7010 - 5060.8400 | | |
| | 5082.6960 - 5264.0950 | | |
| Line 5 | \$41,405,973.48 | 3450497.79 | \$6.60 |
| | G/L Account 5082.2120 | Divide by 12 | Divide by access lines of 523,141 |
| Line 6 | \$55,944,932.88 | 4662077.74 | \$8.91 |
| | G/L Accounts 5084.2111 - 5084.5372 | Divide by 12 | Divide by access lines of 523,141 |
| Line 7 | \$5,719,822.44 | 476651.87 | \$0.91 |
| | G/L Accounts 5272.0120 - 5272.0210 | Divide by 12 | Divide by access lines of 523,141 |
| Line 8 | \$2,154,519.96 | 179543.33 | \$0.34 |
| | G/L Accounts 5100.0100 - 5100.1100 | Divide by 12 | Divide by access lines of 523,141 |
| Line 9 | \$15,899,784.00 | 1324982 | \$2.53 |
| | G/L Accounts 5082.693 | Divide by 12 | Divide by access lines of 523,141 |

Exhibit 3

Calculation of UNE-P Rate As Used in Mr. Steve Mowery's Direct Testimony Table 4 Line 11

| | Zone 1 | Zone 2 | Zone 3 |
|--|----------------|---------|---------|
| Local Loop * | \$17.44 | \$22.23 | \$25.84 |
| Switching Port Charge * | 3.09 | 3.09 | 3.09 |
| Local Switching Per MOU * 1500 minutes @ \$0.0033200 | 4.98 | 4.98 | 4.98 |
| Average UNE-P Rate | <u>\$25.51</u> | \$30.30 | \$33.91 |

^{*} Rates used are the Verizon rates that were in effect when ALLTEL acquired the Kentucky properties.

Exhibit 4

Call Detail Records

REDACTED IN ITS ENTIRETY

Exhibit 5(a)

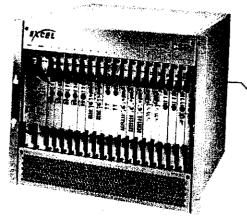
Excel Switching

Converged Services Platform

Where Applications Perform Best

Excel's Converged Services Platform (CSP) is a high-performance, carrier-grade open services system that addresses an industry demand for profitable applications. The CSP bridges existing wired and wireless networks with next-generation IP networks. It provides application developers with both IP and PSTN call control, media processing and signaling, enabling them to implement rich, network-based converged services.

From unified messaging and automatic speech recognition to web-initiated voice services and voice portal solutions, the CSP is the ideal solution for carrier-class communications services. Its multi-function design enables developers to create and deliver new revenue-generating services for both legacy and next-generation networks, quickly and cost-effectively.



Flexible in every aspect, the Converged Services Platform delivers on Excel's vision of an open programmable architecture designed to meet the demands of all types of communications services in any generation of underlying network technology.

CSP Key Benefits

Today's telecommunications service providers are struggling to maintain their existing subscriber base while enticing new customers to join. Meanwhile, service pricing is at an all-time low while network operating costs remain high. What is going to differentiate one service provider from another? Clearly, the service provider that can be first to market with compelling yet cost-effective services will reduce churn and increase average revenue per user (ARPU).

The CSP is designed to enable developers to bring new, advanced services to market faster and more cost-effectively...on a platform that provides the greatest flexibility, reliability, scalability and performance in the industry today. Developers choose Excel as their network platform provider because there's a compelling business case for the CSP:

Faster Time to Market - By integrating multiple network protocols in a single system while employing a rich application development environment, the time and effort required to develop communications applications is significantly reduced.

Reduced Costs - With all signaling and media supported in a single platform, both the cost and the complexity of implementing new services are reduced, not to mention training, environmental, service agreement, and other costs that multiply with each platform.

High Reliability – With NEBS3 compliance, five 9's (99.999%) reliability, no single point of failure, hot-swappable cards, and comprehensive reliability software, developers can assure service providers of a secure and robust operating environment.

Investment Protection - The integration of legacy PSTN and next generation IP technology allows revenue generating services to be built on a single platform, bridging existing and new network infrastructure, and efficiently leveraging service provider assets.

Greater Flexibility - The CSP supports a wide range of network protocols; systems are highly scalable to support relatively small networks to very large ones; systems can be configured specifically for the service provider's environment, while supporting upgrades and expansion in the future.

In summary, the CSP can expedite time to market, reduce costs, increase revenues and protect the carrier's investment – resulting in greater profitability for the service provider. These benefits provide a powerful value proposition for the developer, as well as the direct benefits of an easy-to-use, highly flexible switching platform for their applications.



A Survey of CSP Solutions

The CSP's multi-functional platform design enables application developers to build differentiated solutions to meet the unique needs of individual service providers. It can operate in a variety of roles in the network, including service node, media gateway, voice switch, media server, application server, and registration server. Typical CSP applications include:

- Wireline and Wireless Prepaid
- International Gateway
- Unified Communications
- Operator Services
- Conferencing
- IP Centrex and End Office Switch
- Short Messaging Service
- Protocol Converter/Transcoder
- Web-based application switch
- Musical Ring Back Tone
- Network-based IVR
- Network-based Call Centers

Open Architecture by Design

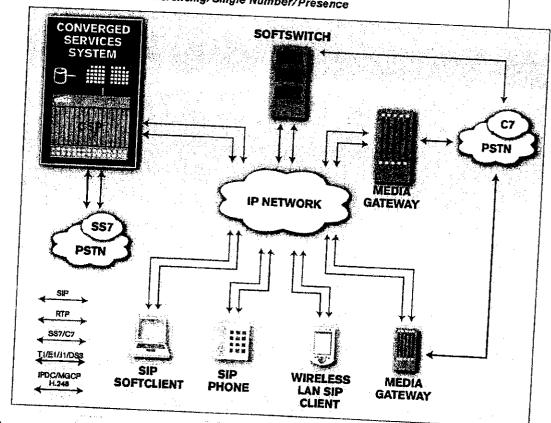
The CSP supports the highest levels of call control and integration with external resources, media, and "any-gen" network protocols. Key platform design concepts and a commitment to open technology illustrate Excel's architecture by design.

Open Programmability means that the CSP is not only configurable, but truly programmable ~ developers can create distinctive competitive services on a single, scalable platform, to meet different carrier needs.

Open Standards enable interoperability among multi-vendor resources to create a single, integrated system. Internet protocols such as SIP and H.323 can be supported on a single platform and can interoperate seamlessly with PSTN protocols such as SS7/C7, ISDN, and R1/R2 CAS protocols.

Open Technology enables the use and re-use of technology where it makes sense, and establishes a smooth transition to new releases and capabilities of the CSP, through a modular design approach. This enables developers to introduce new technologies and re-use existing technologies for new services without re-design or re-programming.

Sample Converged Services Environment for Conferencing/Single Number/Presence



Flexibility in Every Aspect

The CSP delivers on Excel's vision of a new kind of network architecture that is untethered by a particular service or preconceived notion about the underlying network. Excel capitalizes on innovative technology and open design techniques to offer important platform capabilities:

A Distributed Signaling Architecture separates the physical network interfaces from the logical signaling operations, distributing telephony services across all service resources. This maximizes configuration flexibility white enabling seamless interworking of IP and PSTN signaling protocols.

Network Interoperability supports converged wireline, wireless and IP networks. A patented programmable signaling capability for domestic and international deployments, called Programmable Protocol Language (PPL), enables developers to create and customize signaling variants in the field—an exceptional technology that has been proven in more the 70 countries worldwide.

Integrated IP Services are supported with the IP Network Interface Series 2 card, where the CSP becomes fully IP-enabled, supporting both circuit-switched voice and voice-over-IP (VoIP) services. Developers and service providers can protect their investments by leveraging today's applications into solutions for tomorrow's networks – all with a single platform.

Scalability and Expandability are key requirements for service providers, and the CSP addresses a variety of configuration needs. The platform can be configured to support as few as 96 ports, and can grow to thousands of IP and/or PSTN ports in a single system. This flexibility enables network operators to deploy services in an orderly and cost-effective fashion.

The CSP's Configurable Chassis Design supports a universal card-slot architecture, enabling systems to be configured to meet the specific needs of the application as well as the unique network requirements of each customer environment.

To address **Reliability**, the CSP is built for deployment in central office-class environments, meeting the rigorous standards of the telecomm community with 99.999% ("five nines") reliability. Systems can be configured to meet varying levels of redundancy to achieve high availability. All cards are hot-swappable, thus in-service systems can undergo maintenance or expansion without interruption of service. An embedded, realtime, multi-tasking operating system supports fault monitoring, fault isolation, and automatic switchover.

A Rich Application Development Environment including a powerful, common API and complete Operations, Administration Management and Provisioning functionality (OAM&P) is provided via SwitchKit, enabling developers to quickly create and deliver new revenue-generating services. With a common API, applications can be designed once and re-used to support multiple networks, saving valuable developer resources.

Industry-leading Programming Environment

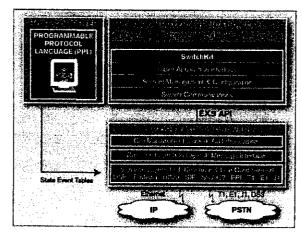
The CSP is supported by a software environment that provides rich management support as well as powerful programming tools.

Real-time Operating System - The CSP uses a real-time operating system running in a distributed environment on each intelligent card, to maximize system throughput. The CSP conducts signaling on the card, so the developer doesn't need to implement separate APIs for each network interface. The CSP supports a system resource management layer, which enables call routing on the CSP without host intervention. The CSP uses a message-based API to communicate with the host, and supports all call control as well as OAM&P.

SwitchKit - The CSP is delivered with the industry-leading software development environment, SwitchKit. SwitchKit provides a robust administration and maintenance (OAM&P) environment as well as a rich set of tools to develop multi-network and multi-service applications.

PPL - One of the most significant features of the CSP is its industryleading programmable protocol language (PPL), providing signaling protocol development tools for domestic and international deployments. PPL allows developers to rapidly create and/or customize signaling variants, which are so common in international networks. The tool can be used in the office or in the field, significantly improving on deployment time and expediting network compliance.

■ CSP Software Environment



Chassis and Operating Environment

The CSP is offered in two twenty-slot chassis, the CSP 2000 and the CSP 2000+, to meet varying power requirements; both offer the same network services, software environments, and configuration flexibility. The CSP 2000 and 2000+ support up to 2,048 physical voice channels and over 10,000 virtual channels as an SS7 and/or SIP application-server. With the exception of dedicated CPU and power cards, all card slots are universal, allowing any network or resource card to be installed in any slot location, maximizing configuration flexibility.

CSP Technical Specifications

System Features

- Multi-function platform: PSTN/IP service node, media server, media gateway
- Standards-based, NEBS compliant, carrier grade architecture
- Scalable from 96 to thousands of non-blocking ports
- T1-E1/J1/DS3/RTP network interfaces
- · Multi-protocol (PSTN and IP)
- Dual 10/100 Ethernet LAN interfaces per VolP card (IP Media)

System Redundancy Features

- · All components hot-swappable
- · No single point of failure
- 1+1 CPU active standby
- · N+1 (T1, E1, J1, DS3) card redundancy
- 1+1 SS7 and ISDN active standby
- 1+1 power supply, load sharing, dual power feeds
- DSP load sharing
- · IP Media load sharing

Packet Protocols

- SIP: RFC 3261
- H.323 v2: H.323 devices and endpoints (H225.0, O.931, H225.0 RAS, H.245)

Signaling Protocols

- SS7/C7: ISUP ANSI (T1.113) and ITU-T (White Book 1993), ISUP-ETSI with country variants, TUP, SCCP/TCAP
- IN wireless protocol stacks: MAP/CAP, WIN ANSI-41, INAP
- ISDN PRI Q.931, Euro ISDN, National ISDN, other international variants programmable by GUI

IP Network Interface Codecs

- Selectable codecs; G.711, G.723.1, G.726, G.729
- Group 3 Fax Relay via ITU T.38
- DTMF digit relay via RFC 2833
- RTP redundancy via RFC 2198
- · Adaptive jitter buffer
- Echo cancellation (G.168 compliant)
- Silence suppression
- Comfort noise generation

OAM&P Features

- Windows/NT GUI (LLC also supported in Linux and Solaris)
- Real-time alarm monitoring via SNMP
- Local and remote management
- Resource utilization reporting

Physical Specifications CSP 2000+

- Height: 48.9cm (19.25")
- Width: 43.8cm (17.25")
- Depth: 48.6cm (19.125")
- Weight: 34kg (75lb) unloaded; 50kg (110lb) loaded
- Power Consumption: 725 Watts
- Environmental: 0°C to 50°C operational

Physical Specifications CSP 2000

- Height: 39.9cm(15.7")
- · Width: 43.8cm (17.25")
- Depth: 48.6cm (19.125")
- Weight: 30kg (65lb) unloaded; 45kg (100lb) loaded
- Power Consumption: 450 Watts
- Environmental: 0°C to 50°C operational

Compliance

- United States: FCC Part 15; UL 1950 3rd edition
- Canada: ICES 003; CSA 22.2 No. 950
- NEBS: NEBS Level 3
- European Union: CE Mark



Excel Switching Corporation
75 Perseverance Way
Hyannis, MA 02601 USA

T 508.862.3000 F 508.862.3020

www.xl.com

Exhibit 5(b)



Converged Services Platform

Convergence: Get Ready for the World of "Any-Gen" Services

Remember the days of plain old telephone service?

It wasn't so long ago. Then deregulation introduced enhanced services, and voicemail was king. But the wireless revolution sent the telecomm market spinning. The European Union unleashed pent-up demand for international trade with wireless networks. The Far East and Latin America joined the world economy with wireless networks. The U.S. rapidly ramped up its wireless infrastructure. The industry competed with single number and prepaid services. Throughout this time, the Internet quietly forged ahead, eventually garnering the world market for data networks.

Today, network services are available on a global scale. New, "next-generation" services are being rolled out, including web-based messaging, instant messaging, unified messaging, and web-initiated conferencing. But the challenges are daunting. With declining ARPU (average revenue per user) and

escalating network costs, service providers need to know how to remain profitable.

Carriers need to offer new services cost-effectively, without abandoning the services that subscribers are using today. Meeting this challenge requires visionary technology.

One vision for the next generation telecom
landscape uses a new breed of open switching
platforms for both PSTN and IP networks,
supporting any communications-based application.
It leverages a distributed architecture designed for
carrier-class reliability, performance and scalability.
The system allows new and enhanced services to
interoperate compatibly.

Ideally, these "any-gen" services should give subscribers access to information at any time, in any location, on any device. In this "any-gen" environment, today's enhanced services can

interoperate compatibly with next generation services, enabling carriers to support existing

The Converged Services Dilemma:

Generate Revenue today, or Invest in Futures?

In spite of discouraging forecasts, the telecomm market continues to grow, just not as rapidly as during the telecommunications "explosion".

According to IDC, IP Telephony is growing at 14% CAGR, the mobile network continues to grow at a rate of 8-11% CAGR, and even the PSTN is growing at a steady 5% CAGR. And despite industry focus on IP-centric products, billions of subscribers continue to use legacy PSTN services.

Still, it is clear that the network of the future will support IP convergence, presenting application developers with a dilemma: should developers continue to build legacy-based services that generate revenue today, or should they abandon those applications and invest in the IP-based solution of the future?

The Solution for Integrated Services:

Excel's Converged Services Platform

The CSP is an "any-gen" platform designed to support revenue-generating communications services in traditional PSTN networks, in packet-switched IP networks, and in converged services networks worldwide.

The CSP supports an open architecture, achieving unparalleled flexibility in terms of configurability, scalability and integrated network services, as well as best-in-class call control and signaling support.

customers while attracting new ones, using a costeffective converged services architecture.

From unified messaging and automatic speech recognition to web-initiated voice services and voice portal solutions, the CSP is the ideal platform for carrier-class services. Its open, multi-function design enables developers to create and deliver new revenue-generating services for both legacy and next-generation networks, both quickly and cost-effectively.

CSP Key Benefits

What is going to differentiate one service provider from another? Clearly, one major differentiator is the service offering that the carrier markets to its customers. Another is the quality of service that the subscriber actually experiences. And the third could be described as the flexibility that the carrier has in terms of expanding its service and network offerings as the market evolves.

The CSP is designed to enable developers to bring new, advanced services to market faster and more cost-effectively... on a platform that provides the greatest flexibility, reliability, scalability and performance in the industry today. Developers who choose the CSP derive the following compelling benefits:

- Faster Time to Market
- Reduced Costs
- High Reliability
- Investment Protection
- Greater Flexibility.

In summary, the CSP can achieve greater profitability for the service provider, and a powerful value proposition for the developer.

Designed for Integrated Network Services

In the Excel tradition, the CSN is inherently designed to operate as various key components of telecommunications networks, including:

- IP Service Node.
- Media Gateway
- Media Server
- IP Centrex/PBX
- Class 4/Toll Bypass
- Web-based Application Switch.

Open Architecture

Key CSP platform design features illustrate Excel's commitment to open architecture.

Open Programmability means that the CSP is not only configurable, but truly programmable – developers can create distinctive competitive services on a single, scalable platform, to meet different carrier needs.

Open Standards enable interoperability among resources to create a single, integrated system. PSTN and IP protocols are supported on a single platform, enabling converged services.

Open Technology enables developers to introduce new technologies and re-use existing technologies for new services without re-design or re-programming.

SwitchKit

The CSP is delivered with the industry-leading software development environment, SwitchKit. SwitchKit provides a robust operations, administration and maintenance (OA&M) environment as well as a development environment that enables developers to bring revenue-generating "any-gen" services to market quickly and cost effectively.

Benefits of SwitchKit

Designed specifically for the CSP, SwitchKit provides advanced services that promote rapid development and powerful management tools. Developers derive several benefits by using SwitchKit:

- Improved Time-to-Market
- Reduced Development Costs
- Competitive Service Differentiation
- Better Price Performance
- Superior Flexibility.

In addition to reduced time-to-market and potential cost savings, SwitchKit provides important advantages to service providers:

- Improved Network Management
- Reduced Network Management Costs
- Future-Proof System Investment

CSP Converged Services Platform

Fast Track to Any-Gen Services

Building on proven technology that has made Excel the leader in enhanced services platforms for over 10 years, the CSP and SwitchKit deliver a carrier-class solution for both today's

and tomorrow's services, benefiting both

developers and service providers worldwide.



Open Network Platform Partner Program

EXS Platform Partners

Argent Networks

41 Sale Street • Auckland • New Zealand

Argent Networks, Ltd. is a leading developer of real-time billing and intelligent routing applications for circuit-switched, VoIP, Intelligent Network, Softswitch, GPRS and 3G networks. Argent's Eclipse™ platform is a fully Java-based multi-application real-time billing, call control and service creation platform. The real-time billing functions can be used to bill for not only voice services, but also data, content or any other type of event. Argent's Eclipse™ offers several standard applications, including Prepaid Mobile, Prepaid Calling Card, Prepaid Fixed, Tandem Switching, Callback, One Number/Personal Number, VPN, Intelligent 800/900 Services, Local Roaming, Intelligent Call Routing, Intelligent Call Screening and Voice Mail.

Eclipse™ also comes with a powerful Java-based Service Creation Environment (SCE) that runs in any browser. The SCE allows service providers to design, develop and test their own custom services using a Graphical User Interface. The user can drag and drop basic functions such as answer call, place call, rate for duration, rate for amount, get routing, get subscriber information, etc. and connect these functions just like editing a flow chart.

Eclipse's biggest advantage is platform independence. Eclipse™ is entirely written in Java and can run on any J2EE application server, on any operating system from Sun Solaris, HPUX and Compaq Tru64 to Linux or even Windows. Furthermore, the Eclipse™ software architecture is modular and distributed, meaning that when you expand, you can simply add more servers in load-sharing mode rather than requiring a forklift upgrade as with many of our competitors' proprietary client-server architectures.

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Broadband Utilities, Inc.

2301 N. Greenville Avenue • Suite 400 • Richardson • TX • 75082

Broadband Utilities, Inc. specializes in providing next-generation networking expertise to the communications industry. Broadband helps clients plan, design and manage networking solutions to meet both business and technical objectives. Broadband Utilities has a range of expertise that covers both current and emerging technologies including, high speed switching; Internet/Intranet internetworking; and public and private wide and local area networks for voice, data, multimedia and video.

At the heart of Broadband's EXS-based solutions is their highly reliable; carrier-grade Operator Services platform. IntelligentACD™ (INACD) is an IP-centric automatic call distribution system (ACD) for operator services and large network-based call center applications. It is based on open systems architecture hardware and the industry's most advanced object-oriented software. IntelligentACD™ is more scalable than PBX or PC-based automatic call distributor systems and more affordable than Central Office (CO) based systems, which are not built to be compatible with Voice over IP (VoIP).

Broadband Utilities has provided custom development, and operational support system services for some of the world's largest carriers and Fortune 500 companies. Broadband serves progressive "next generation" service providers who strive to integrate traditional telecommunications functions with the Internet and other data networks.

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Cell Communication Technology Co. Ltd.

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Cell Communications, located on the campus of South China University of Technology (SCUT), was founded in March 2001 and formed after the strategic financing and system reform of the Research Institute of Technology (RICA) of SCUT. The company is dedicated to the research and development of advanced communication products for use in telecommunications, computer and information management.

With over 180 employees, Cell Communication has developed and deployed many value-added services that include voice messaging, call center, unified messaging, single number service, IP Telephone Meeting, Prepaid Card for Mobile, Televoting, and billing. As a company, Cell Communication is dedicated to developing high quality products with an emphasis on delivering the best customer care and service. Cell Communication's primary market is the South China area, and their customers include: China Telecom, China Mobile, China Unicom, China Netcom, China Electriccom Jitong, China Railwaycom, and the Company of Telecommunication of Macau.

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Cyberlog, Ltd.

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Cyberlog produces a line of Service Nodes to address enhanced services and call center applications required in today's Telecommunications networks. The Cyberlog Call Center Service Node provides processing for Operator Services and National Directory Assistance (NDA) calls with automated call

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completion. The platform supports all SS7 compatible switches, is customer programmable, and easily adapts to each unique application. Programmability and flexible provisioning allows the platform to address screening and branding requirements of the Call Center application.

Additional services and applications available on the Cyberlog Service Node include pre-paid calling card; enhanced calling card; specialized validations such as ANI, authorization codes, and account codes; specialized routing (800-VPN-IDDD) & branded menuing. Additional features that enhance platform functionality include voice mail, conferencing, fax store & forward, and voice recognition. Modular in construction, the multi-faceted Cyberlog Service Node is cost effective to acquire and expand.

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Global Communication Technologies, Inc.

14455 Webb Chapel • Dallas • TX • 75234 • USA

Global Communication Technologies, Inc. is a full-service, turnkey developer and solutions provider of Tandem and Call Center telecommunications products and services. The Global family of Switching System (GSS) platforms incorporates Lucent's leading edge programmable switching technology utilizing Global's own proven Switch Operating Software. The new design of this software is based on our product's 20-year history in Private Tandem Networking and Call Center markets. The new design, based on Lucent Open Network Platform, has allowed Global to quickly develop and market a wide range of enhanced services for our customers. This development effort has resulted in a switching platform which has evolved into a mission critical full-featured Tandem, Call Center, TRS/TDD Relay, Operator Services, Telemarketing and International Gateway platform with basic CLEC functionality, Debit Card and International Callback Services, and SNMP Management functionality within the same platform. The GSS System can be deployed virtually anywhere in the world as a standalone or networking system, and can be easily integrated into existing networks. This system supports the latest in T1, E1, J1, and North American and Euro ISDN and SS7 technologies. Global provides comprehensive full service support, installation, training and on-site support through a variety of service offerings.

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Global Link

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Global Link specializes in the design and development of telecommunication network application software, providing some of the most advanced network applications for communications service providers and carriers, including value added services over IP networks. Global Link provides complete technical support to system integration operators, as well as offering customized application services. Global Link was established in 1998 in Guangzhou, China.

Since its inception, Global Link has focused on advanced value-add applications in telecommunication exchange, computer network, IP network, CTI, etc. Global Link's products include MAGPlus, a

Lucent Technologies Open Network Platform Partner Program

75 Perseverance Way • Hyannis • MA • 02601 Ph (508) 862-3000 • Fax (508) 862-3005 www.lucent.com/businesspartners/ons/exs.html comprehensive enhanced services platform, MAGPlus-Telecom Operate Integrated Services System, MAGPlus-ExIVR (Extra Intelligent Voice Respond System), and the GL2000 Call Center System.

Global Link products are currently deployed in several industry areas including: telecommunication, power supply, banking, financial and insurance. Services have been installed and are operating in major cities of China, including: Beijing, Shanghai, Guangzhou, Shenzhen, Hainan, Sichuan, and Zhengzhou. Other countries and regions served include the USA, CANADA, Australia, Malaysia, Hong Kong, Singapore and Taiwan.

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Heritage Communications Corporation

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Heritage Communications (HCC) designs and develops the software and hardware tools needed to stay ahead of the wave in today's fast-paced telecommunications world. Heritage markets, sells and maintains network systems to it customers, but has also deployed services in its own Carrier Services and Enhanced Services Divisions.

Heritage's World Talknet™ Call Management, Billing and Enhanced Services platform has been successfully deployed in commercial networks since 1996. The platform, which incorporates Lucent's EXS switch, offers solutions including: least cost routing based on Billing RateTables (eliminating hard to maintain LCR tables); flexible call routing, product design and launch via World Talknet™ scripting; real-time call rating and billing, and automated invoicing.

HCC recently announced the availability of Clic-Switch EXSpress™, a switch configuration, management and database solution designed expressly for Lucent's EXS programmable switch. Clic-Switch EXSpress provides network-aware tandem/gateway switch software with a user-designed interface allowing quick switch configuration (14 full EXS nodes with ISDN, SS7 and complete ring configuration 60 minutes) with full redundancy. It also offers a switch and traffic management suite that allows tracing calls (including SS7 codes) with just a click, as well as a wide range of configurable parameters in real time.

Clic-Switch EXSpress™ can be used alone, or optimized when used in combination with the World Talknet™ Billing and Cost Control Management suite.

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iSoftel Ltd.

9 Penang Road • 10-08 Park Mall • Singapore • 238459

Offering next-generation carrier solutions for a changing telecommunications industry, iSoftel is one of the few companies to offer true flexibility, scalability and functionality in a prepaid/postpaid system. Unlike the majority of available prepaid/postpaid platforms, iSoftel Millenia Prepaid/Postpaid Management System (PPMS) offers a truly comprehensive solution. Lucent incorporates this robust solution into its Expandable Switching System (EXS) with the Millenia EXS.

Millenia EXS enables a wide variety of service providers to deliver new revenue-generating services, such as prepaid calling cards, one number service, and unified messaging, all with real-time billing, web-

Lucent Technologies Open Network Platform Partner Program

75 Perseverance Way • Hyannis • MA • 02601 Ph (508) 862-3000 • Fax (508) 862-3005 www.lucent.com/businesspartners/ons/exs.html based management, and fraud-control capabilities. Softool, their graphical development platform, integrates with their solutions to provide for rapid service creation for voice, fax and messaging applications.

Based in Singapore, with offices in Malaysia, Thailand, Hong Kong, Taiwan and the United States, iSoftel has been listed on the mainboard of the Singapore Exchange Securities Trading Limited (SGX-ST: ISOE) since August 2000.

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JamboTECH, Inc.

26901 Agoura Road • Suite 170 • Agoura Hills • CA • 91301

JamboTECH offers Enhanced Conferencing & Desktop Dialing Services optimized around the Lucent EXS Converged Services Platform, delivering superior revenue opportunities to service providers or marketers wishing to deploy carrier grade conferencing services. Solutions are delivered as customized managed services with platforms housed within JamboTECH's Los Angeles Network Operations Center or at the customer's site. JamboTECH's enhanced teleconferencing platform includes innovative features, which are unavailable from other conference bridge hardware providers, such as voice dialing, synchronization of contact data, and desktop dialing applications coupled with traditional services built with a dependable, scalable architecture.

In the rapidly growing and evolving conferencing market, service providers seeking alternatives to the undifferentiated and closed feature sets of their legacy systems can leverage JamboTECH's enhanced conferencing services to reduce per port costs, increase system capacity and reliability, and drive new business through product differentiation built with custom next-generation features. All JamboTECH solutions are supported with a variety of robust back office resources including multiple billing options, network monitoring and support, and online traffic and account management tools. If desired, JamboTECH can provide bundled OEM operator support, LEC billing and network transport at very competitive wholesale rates.

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Locus Networks

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Locus Corporation is a global supplier of intelligent telecommunications solutions that enable service providers and financial institutions to succeed in today's increasing competitive markets. Locus' main product line features a wide range of enhanced service solutions, CTI-based call center solutions, and switching equipment solutions. The enhanced services embodied by the company include voice mail, short message services, voice-activated dialing, prepaid services, IVR, unified messaging, one-number

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services, international call back, intelligent 800 services and other services.

Locus Corporation has delivered sophisticated telecommunication solutions to more than 200 customers. Locus' technology is characterized by its flexibility, scalability and reliability, which help customers maximize profits now and into the future.

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Logica

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Logica is a leading provider of Aethos IN Service Node products to network operators worldwide. The Aethos Service Node is a flexible hardware and software platform, based on Lucent's Expandable Switching System (EXS) switch and Hewlett Packard servers. It is suitable for use by a wireless operator, service provider or bureau. It allows the creation of advanced services for wireline or wireless networks, including GSM, CDMA, D-AMPS, AMPS and TACS. The system is easily scalable from 10,000 to greater than 1 million subscribers. Advance services include: Pre-paid GSM, rental phone, personal number, multiple accounts, group calling, hunt groups, balance enquiry and usage restrictions by customer.

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Network Telco Inc.

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Network Telco provides complete carrier-class Central Office switching solutions available with preintegrated Back Office Operation Support System applications. In conjunction with Lucent's EXS platform,
software developed by Network Telco offers switch solutions for Class 4 Tandem, Class 5 Central Office,
Enhanced Voice Services, and Debit or Pre Paid service applications. In addition to industry standard
features including all Custom Local Area Signaling Services (CLASS), Centrex, Voicemail, SS7 (ISUP and
TCAP), GR-303 T1 or V5.2 E1interfaces, ACD/IVR and Primary Rate ISDN, Network Telco offers its own
billing, rating, provisioning, maintenance and monitoring system, as well as a web-enabled Customer Service
interface. Network Telco solutions are designed for ILEC, Municipal, Power Company, Real Estate
Development, CLEC and campus environments and scale well between 2000 and 20,000 lines. Network
Telco principal software has been in the field for over 10 years and is known for its long-term reliability.

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NewTone Communications Corporation

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NewTone Communications Corporation, founded in May 1999 provides enhanced telecommunication services and service creation environment software for both legacy and emerging network carriers. The company's main product, the MESP (Multiple Enhanced Service Platform), is a carrier-grade software platform with open and distributed architecture.

Currently, numerous telecom operators have installed and are running live traffic with NewTone Communications' MESP in China, Hong Kong and Singapore. Services offered by NewTone include unified messaging, single number services, prepaid calling cards and intelligent voice resources. The company's R&D facility is located in Shanghai, China with 70 employees.

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PhoenixSoft, Inc.

6530 N. 16th Street • 2nd Floor • Phoenix • AZ • 85020 • USA

PhoenixSoft is a software development company, specializing in the design and implementation of Switching and Billing applications for the communications industry. For the past fifteen years, they have provided cost-effective enhanced switching and convergent billing products and services to network carrier and CLEC markets throughout the world.

PhoenixSoft manufactures two complementary applications, the CMS/2000 Enhanced Switching Platform, and the CMS/Server Convergent Billing and Customer Care System. Both applications are Client/Server based, run under UNIX or Windows operating systems, utilize ORACLE or SQL Server databases, and are compatible with industry standard hardware platforms.

Utilizing the latest developments in Client/Server technology, and in conjunction with Lucent's EXS family of programmable switches and SIP-enabled platforms, the CMS/2000 provides tandem switching, calling card, international gateway, one number calling, callback, 1+ resale, feature groups, and dial tone services.

CMS/Server's Billing and Customer Care modules include call rating and tariffing, customer care, provisioning, accounts receivable, work order/trouble ticket processing and flexible export utilities. All products are available as turnkey systems or service bureau applications.

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Proactive Technology Holdings Limited

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Proactive Technology Limited is a Hong Kong-based company, with established offices in Shanghai, Singapore, Taiwan and Australia. Proactive offers tele-commerce enhanced service solutions for the wireline and wireless telecom marketplace and for the large corporations in the Greater China and Asia Pacific regions.

The flagship product - GlobalCall System provides many field-proven enhanced service applications, such as prepaid/postpaid calling card, personal number service, voice/fax mail, international call-back, short message service, teleconferencing, VPN, tandem switching, international gateway, ISR gateway, etc.

The GlobalCall System is designed to meet the fast-changing requirements of next generation telco and telecommerce service providers, with its characteristics of reliable, scaleable, and open. In additional to standard GlobalCall System, tailor-made solutions and consultancy services are available.

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Pulsar Communications, Inc.

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Pulsar is launching a unique, intelligent communications service called *StarNet* that offers a single, personalized source for integrating and managing all levels of communications through a voice-activated and web-activated user interface. *StarNet* services include, at a minimum, voice-activated and web-activated personal assistant, "virtual telephone system" features, single number service, unified messaging, conferencing and call recording. *StarNet* overlays our current network platform, the Pulsar Network Exchange (PNX). The PNX is a highly reliable Tandem and International Gateway platform that integrates a variety of revenue-generating enhanced services.

PNX supports T1/E1, ANSI and ITU Primary rate ISDN, SS7 and all standard network interfaces. The system includes critical OAM&P functions such as remote maintenance and administration as well as real-time alarming and monitoring. PNX also includes a Customer Relationship Management System (CRMS) GUI-based tool called CRMS Advantage.

As an Application Service Provider, Pulsar's outsource strategy provides a competitive service provider with connectivity and transport within the PNX platform, effectively obtaining the benefits of facilities control with minimal capital outlay. By overlaying *StarNet*, a provider can now offer voice-activated services bundled with network dial tone to end-users.

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RUBIX Information Technologies, Inc.

402B Paulding Avenue • Northvale • NJ • 07647 • USA

RUBIX is a leading provider of telecommunications switching solutions and consulting services. RUBIX has developed the TRADETM Architecture, designed to meet the demand for a simplified, and manageable interface for the EXS Platform. This revolutionary environment powers all RUBIX solutions, and is the core of all our turnkey products.

TRADE is a full kernel and development system that has been written ground up for Lucent's EXS Platform. The TRADE Kernel is written in C and C++ on Solaris, and uses Lucent's SwitchKit package for switch-host communications. TRADE is currently supported on Solaris/SPARC and Intel, as well as Linux (for OEM's) platforms. TRADE can communicate with Oracle 8i/9i, Microsoft SQL 6/7/2000, and PostgreSQL to maintain its core information, as well as additional information needed by the modules.

TRADE can be used as the basis for any telecom package to be developed on the EXS, saving anywhere from 75%-90% of the development costs when compared to developing from scratch using the SwitchKit or EXS API's.

TRADE is also be available as a turnkey package using with the following modules available from RUBIX: Wholesale Tandem - geared for carrier-to-carrier businesses and includes reports and invoicing, Long Distance – geared for retail tandem businesses and includes account management, reports and invoicing, and Pre and Post Paid Calling Card.

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SchlumbergerSema

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SchlumbergerSema is a leading provider of advanced communications solutions for wireless, wireline, and IP networks. With the company's award-winning ORYX® service node, service providers can offer innovative and profitable prepaid and post-paid calling, enhanced messaging, and unified communications services that build customer loyalty and generate revenue from diverse markets. By providing industry-leading solutions, comprehensive installation and training, and ongoing customer support, SchlumbergerSema has established a loyal customer base in wireless and wireline markets in more than 27 countries worldwide.

SchlumbergerSema's customer base extends worldwide as organizations throughout Africa, Asia, Europe, Australia, and North and South America have chosen the ORYX platform to deliver solutions that meet the growing demand for sophisticated business and residential services in new and evolving telecommunications networks. Through our strategic partnership with Lucent Technologies, today more than 250 ORYX service nodes are operational in diverse telecommunications companies around the globe.

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SHS Communications

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SHS Communications develops and integrates robust, telco-grade equipment and services to LEC, CLEC and IXC carriers. Their SHS 2000 Programmable Switch Platform, based on Lucent's EXS programmable platform, is an interface layer between the customers, Carriers/Service Providers, and third party networks and applications providing the telephony interface for basic and enhanced services including pre and postpaid calling card. The system is designed to provide very high levels of reliability and flexibility for up to 30,000 ports.

The SHS 2000 Platform is comprised of the Lucent EXS Switch, Application Processor, Database Server, Voice Interactive Component and Finance Control Module. The system is administered through a robust application Host Server of Telco-grade, 48V DC, Intel component architecture.

PayStar SHS develops and supports the Application Development System (ADS) for call control. The ADS Host is multitasking with real time configuration capabilities. It allows the user to configure, make changes, add, change, and customize new applications without disrupting in service applications. Configuration tables are saved on the system's hard drive and are used whenever the need occurs. ADS provides automatic boot startup, cold startup, and warm startup. Signaling, configuration, and translation include SS7, C7, ISDN, DTMF, MFR1 and MFR2 for T1s, E1s and J1s. SHS as required, can easily set up additional protocols or "flavors" by utilizing Lucent's PPL tool.

SHS's VIC plays & records prompts and offers a number of custom applications. Typical SHS 2000 systems contain two load-sharing VICs allowing non-technical personnel to easily customize features. Some attributes of VIC allow: selection from multiple voice menus, dialing a domestic or international number, dial up to 89 speed dial numbers, customize voice prompts by card or group of cards, transfer to information services and automated surveys, enter voicemail, password-protected recording and review of voice prompts, automated credit card billing, transfer the balance from one PhoneCard account to, and dial out to an other vendor's products connected to SHS's SHS 2000 switch.

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Suntek Technology Co., Ltd.

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Suntek Technology Co., Ltd. is a telecommunications company focused on software development and system integration for value-added applications such as unified messaging, prepaid calling and debit cards, intelligent voice resources, voice messaging, billing, call center and operator services. Suntek has become a leader in China in advanced technology through its outstanding management practices, as well as its unique product offerings and services in industry sectors such as telecommunications carriers, information services, banking, public safety and transportation.

Suntek Technology Co. is a subsidiary company of the Suntek Group, founded in 1986. The Suntek Group has more than 1800 employees, over 80 percent of whom are technology engineers. Suntek is ISO 9001 certified, and has received numerous awards for innovation and service in the China IT industry.

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Wholewise Science & Technology Co., Ltd.

57 Wuyi Middle Road • Fuzhou • Fujian • 350005 • China

Wholewise Science & Technology Co., Ltd., established in October of 1996, is one of the leading hi-tech enterprises in Fujian, China engaged in electronic information for the telecommunications industry. The company's primary focus is the application and development of computer management & control systems,

and they have incorporate these innovative applications into platforms for operation management (OM), net management (TMN), and client-service systems. Wholewise has developed and integrated a wide range of services for telecomm service providers, including call center and operator services, voice messaging, international callback and intelligent voice resources.

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WorldWide Telco, Inc.

65 Broadway • Suite 1801 • New York • NY • 10006 • USA

WorldWide Telco designs and develops unique and reliable carrier-class platform products for the telecommunications industry. WorldWide's switching product line runs exclusively on Lucent's EXS platform and features application modules for: prepaid/postpaid calling card, Tandem switching, 1+ dialing, 1010+ dialing, callback, and a fully integrated answer supervision for analog terminated lines. All of WorldWide's applications are designed bottom up from a carrier's point of view, based on real-world demands and features, allowing our customers to enter today's rapidly changing marketplace with a competitive edge.

Worldwide's debit/calling card module features a GUI interface with an elaborate rate-building tool that surpasses even the current market's creative demands for rating calls. Rating plans can be constructed from any combination of bong charges, rate changes, redefined "minute" units, taxes, X-minute rounding, etc. which can be set up to change dynamically throughout the length of the call. In addition, our platform supports multiple language capability, DNIS (access number), variable length PIN's, automatic credit card transaction processing, multiple PIN's under one account/balance, ANI recognition instead of PIN, user-specified security levels and access, debit card inventory and sales control, user-customized invoicing and a wealth of other popular features.

In addition, WorldWide offers a full application partitioning service on the EXS platform so that new service providers looking to gain entry into the marketplace can test-drive both WorldWide's software and service before investing in their own infrastructure. WorldWide Telco offers a complete turnkey solution, from hardware and installation to customized software development to full consulting, training and support.

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Updated 9/27/02

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Exhibits 5(c) THROUGH (r) REDACTED IN THEIR ENTIRETY

Exhibit 6

In-depth Report

United States Telecom Services-Wireline

23 September 2002

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The Telecommunicator

Telecom Act Seven Years On – The UNE Shock Wave Belatedly Reverberates Around the RBOCs – And How!

Reason for Report: Regulatory Update

Telecom

Highlights:

- The RBOCs seem hemmed in trapped in a maze perhaps? Erosion of their core wireline revenues is coming from several fronts. Having built up in terms of impact over 2001 and gaining momentum in 2002, the increase in the use of UNE-P has become much more visible to investors as an additional secular negative. According to data provided by NRRI, over the past six months, twelve states have reduced UNE rates.
- Given the aggressive pricing of UNE-P in its Ameritech region, it is clear SBC faced considerable competitive pressure from UNE-P in 2001. Based on our estimates, UNE-P lowered SBC's revenue by \$328MM and EBITDA by \$284MM in 2001. Given the relatively low number of lines being resold under UNE-P, we estimate that BellSouth only lost \$21MM of revenue and \$18MM of EBITDA due to UNE-P in 2001. We estimate that Verizon Communications lost only \$85MM of revenue and \$74MM of EBITDA due to the increase it saw in UNE-P lines combined with lower UNE-P rates in 2001.
- As UNE rates continue to be scrutinized in front of (or in some cases in
 parallel with) any new RBOC 271 filings at the state level, it seems
 inevitable that we to continue see pressure on UNE rates driving further
 retail to wholesale access line moves at the RBOCs as the spread between
 UNE-P and retail rates continues to widen offering a larger window of
 profitability for potential competition providing local exchange service.
- We believe that as a group the four RBOCs on run rate basis will have lost a total \$4.3B of revenue and \$3.7B of EBITDA by 2005E due to UNE-P. UNE-P losses represent 2% of combined RBOC 2005E revenue and 5% of 2005E EBITDA. While these numbers are large, they are "manageable" in the sense that while painful and unwelcome they do not overall (although may vary state-by-state) lead to a dire deterioration in financial performance. What this does mean however, is UNE-P represents another non-trivial restraint on EPS growth.
- When we completed our review of the RBOCs' 2Q results with a detailed report on Verizon Communications, at that time (August 15th) we suggested that we expected to see "stabilization" in all of these stocks after the dramatic sell off year to date. However, we noted that we felt that valuations at the low end of historic ranges were here to stay and thus refrained from adopting a more conclusively upbeat view ... a position we continue to hold. Indeed, our analysis on UNE-P further reinforces our cautious view on the RBOCs. We continue to rate each of the three pure RBOCs Neutral.

Refer to important disclosures at the end of this report.

Merrill Lynch Global Securities Research Global Fundamental Equity Research De #17308

EXHIBIT

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1. Overview: Why Worry About UNE-P?

The Regional Bell Operating Companies (RBOCs) seem hemmed in — trapped in a maze perhaps? Erosion of their core wireline revenues is coming from several fronts. Having built up in terms of impact over 2001, and gaining momentum in 2002, the increase in the use of Unbundled Network Elements (UNEs) has become much more visible to investors as an additional secular negative. According to data provided by National Regulatory Research Institute (NRRI), the research arm of the state regulators, over the past six months, twelve states have reduced UNE rates, pushing the national average unbundled loop price down by 5.3% to \$13.43 per month and the basic unbundled network element — platform (UNE-P) rate down by 7.8% over the same period to \$17.48 per month.

As UNE rates continue to be scrutinized in front of (or in some cases in parallel with) any new RBOC 271 filing at the state level, it seems inevitable that we will continue to see pressure on UNE rates driving further retail to wholesale access line moves at the RBOCs. This is the direct result of the spread between UNE-P and retail rates continuing to widen, offering a larger window of profitability for potential competition for local exchange service (just as the Telecommunications Act of 1996 intended). Another driver for UNE expansion will continue to be the incumbent long distance LD players—as they seek to fight back against RBOC LD entry using local/LD bundles which take on (at least for straight voice telephony) the RBOC alternative.

In this report, we address several issues with regard to the impact of lower UNE rates on the local retail business of the RBOCS and which competitors are likely to take advantage of the lower rates. We focus primarily on how UNE-P is impacting and will impact RBOC profitability on the residential segment of their respective local wireline operations. Seven years on, in a strange way, the Telecommunications Act of 1996 is beginning to work. Consumers are finally seeing competition for local exchange services accelerate – with major alternative providers, lower prices and innovative service bundles. However, if anything, we are further away (if ever) from seeing substantial facilities based competition in the residential market on a meaningful level as Congress perhaps originally intended. However, the Telecom Act intended UNEs and resale to be used as a "market aggregation" tool so that competitive local exchange carriers (CLECs) could decrease the risk in initially investing in their own facilities at the beginning of the competitive cycle. It is really too early to tell if AT&T and MCI (assuming MCI survives) are using UNE-P for this purpose, they have a lot of market to aggregate. There are still a couple of smaller CLECs using UNE-P/resale to aggregate and in turn are moving customers to there own switches with UNE-Loops. Broadview Networks is a good example of a small competitor employing this strategy.

In the meantime, the industry is being forced to suffer yet another deflationary trend – of which the RBOCs are unquestionably the losers. We point out that there is substantial facility-based competition in the business market.

The RBOCs list of "Issues" gets longer

Erosion of the RBOCs core wireline revenues is coming from several fronts. If it is not the economy, it is wireless substitution; if it is not wireless substitution, it is cable telephony; if it is not cable telephony, it is high-speed data service replacing the need for second lines for dial-up Internet access. As we have discussed on many occasions, in our view these trends pose a serious growth challenge for the RBOCs over the next several years. And by our estimates, the magnitude of these negative trends is greater than the adverse impact from a weak economy, i.e., the recent deterioration in growth at the RBOCs is more secular in



nature than cyclical. See our report entitled, "What's Up With Telecoms" published on May 21, 2002, which takes a look at the secular pressures on telecom companies in the US and indeed elsewhere – in essence, we concluded that there are many major telecom providers that are at the unpleasant intersection of three factors:

- 1) Maturing growth in many areas that hitherto have been powerful and long lived sources of revenue growth,
- 2) The lack of any "new, new thing" to sustain growth as the old stalwarts (such as wireless, second lines, vertical services) flag,
- 3) A combination of unusual factors whereby competitive and technological forces are acting in a revenue deflationary manner (e.g., wireless and Internet substitution depressing traditional voice LD revenues).

Having built up in terms of impact over 2001 and gaining momentum in 2002, the increase in the use of UNE-P has become much more visible to investors as an additional secular negative that falls into the category of revenue deflators. Albeit one that is different in nature from the issues cited above since the UNE-P phenomenon is to a large extent a regulatory one. UNE-P represents a highly specified (both as to nature and crucially price) wholesale platform for competitors to use RBOC facilities in order to offer local telephone service ... without building out their own competing facilities.

UNE rates continue downwards

Between 1996 and 1997, UNE rates were by and large established through negotiated or arbitrated agreements between incumbent local exchange carriers (ILECs) and the competitive carriers. The state regulators would ultimately approve the rates. In the 1999 to 2000 period, UNE rates were reset as the FCC mandated that UNE rates be deaveraged on a minimum of three Density Zones (typically urban, suburban and rural). More recently, we have been experiencing a second (and in some cases a third) round of re-pricing as RBOCs begin to file for in-region interLATA long distance approval (Section 271 relief) in proceedings with the state regulators before they file with the FCC. In some cases, UNE pricing has also been a major stumbling block for FCC approval of Section 271 applications, as the state regulators take a close look at the issues central to expanding local competition in their markets. We would point out that the UNE pricing scheme applies to all ILECs, while Section 271 relief applies only to the RBOCs.

Linkage to long distance entry

Since the passage of the 1996 Telecom Act, the RBOCs have successfully demonstrated that the local markets are open to competition in 20 states – in a manner that leads to them being granted the right of offer in-region interLATA long distance by the FCC under the terms of Section 271 of the Act. As we move through the end of 2002 and in to 2003, the pace of Section 271 application approvals for the RBOCs will accelerate in our view. Currently, there are six applications that are pending with the FCC. Qwest anticipates re-filing nine applications, which were recently withdrawn, by the end of September. By year end it is possible that the RBOCs will have received long distance relief in more than 30 states, and we believe the RBOCs will receive the remaining long distance approvals in 2003.

The FCC and the states have made reassessing UNE rates a precondition to allowing the RBOCs to offer in-region interLATA long distance service. According to data provided by NRRI, over the past six months, twelve states have reduced UNE rates, pushing the national average unbundled loop price down by 5.3% to \$13.43 per month and the UNE-P rate down by 7.8% over the same period to \$17.48 per month. As UNE rates continue to be scrutinized in front of



(or in some cases in parallel with) any new RBOC 271 filing at the state level, it seems inevitable that we will continue to see pressure on UNE rates. Indeed, the precedent for lower rates set by large states can act as an unpleasant virus from an RBOC perspective ... providing a reason/benchmark for other states to bring their UNE rates down to match. Thus, the flow through of lost revenue and EBITDA for the RBOCs, in their core wireline businesses, also seems unlikely to abate any time soon. Absent, that is, any change they can be encouraged at the Federal (e.g., the FCC decided to reduce the number of UNE elements) or state levels (e.g., via challenging the cost calculations used to rest revised UNE rates).

Agenda for this report – how much ... and how much more!?

In this report, we address several issues with regard to the impact of lower UNE rates on the local retail business of the RBOCS and which competitors are likely to take advantage of the lower rates. We focus primarily on how UNE-P are impacting and will impact RBOC profitability on the residential segment of their respective local wireline operations. In addition, we seek to provide our insights on the following three questions:

- 1. Of the revenue and EBITDA slippage we have seen thus far at the RBOCs, how much is due to the UNE-P?
- 2. Where do we go from here? Given the recent changes in UNE-P rates in several large states, what is the potential impact going forward?
- 3. Is there anything the RBOCs can do to slow the potential acceleration of line losses to UNE-P competition?

We focus on the residential side of the business given that in 1999 the FCC limited the use of unbundled local switching in Density Zone 1 of the top 50 Metropolitan Statistical Areas (MSAs) to residential customers and businesses with less than four lines. Without a switching UNE, there can't be a UNE-P, so given the importance of switching to the UNE-P scheme, we believe it is likely that the growth of UNE-P will be limited to the residential and small business segments. In fact, both AT&T Consumer and MCI through its "Neighborhood Plan" (which are likely to be the largest users of UNE-P for the foreseeable future) have focused a large part of their respective strategies to retain consumer long distance customers on being able to bundle local service with long distance service. Given that neither company has local facilities capable of reaching a substantial number of residential and small business consumers, we believe that they will both continue to rely on the UNE-P.

Over the past five quarters, line losses to UNE-P have increased dramatically (primarily for SBC in its Ameritech region). We believe that the trend is only likely to accelerate as the spread between UNE-P and retail rates continues to widen and thus offers a larger window of profitability for potential competition offering local service (just as the Telecommunications Act of 1996 intended). Another driver for UNE-P expansion will continue to be the incumbent long distance players – as they seek to fight back against RBOC LD entry using local/LD bundles which take on (at least for straight voice telephony) the RBOC alternative.

We will be hearing more on these issues over the next 12 to 18 months – as the IXCs deal as best they can with the inevitable wave of 271 approvals. With moves to promote structural separation of ILECs into wholesale and retail companies unlikely to make progress based on the evidence to date, we think the IXCs' primary effort around the time of 271 applications will be to lobby for lower UNE-P rates at which to access the RBOC networks ... all rather ironic in a regulatory environment which is (in terms of recent comments from the FCC at least) "moving" in the direction of a more facilities-based approach to competition.



Consumers win – perhaps not quite as Congress intended?

Seven years on, in a strange way, the Telecommunications Act of 1996 is beginning to work. Consumers are finally seeing competition for local exchange services accelerate — with major alternative providers, lower prices and innovative service bundles. However, if anything, we are further away (if ever) from seeing substantial facilities based competition in residential markets on a meaningful level as Congress perhaps originally intended. However, the Telecom Act intended UNEs and resale to be used as a "market aggregation" tool so that competitive local exchange carriers (CLECs) could decrease the risk in initially investing in their own facilities at the beginning of the competitive cycle. It is really too early to tell if AT&T and MCI (assuming MCI survives) are using UNE-P for this purpose, they have a lot of market to aggregate. There are still a couple of smaller CLECs using UNE-P/resale to aggregate and in turn are moving customers to there own switches with UNE-Loops. Broadview Networks is a good example of a small competitor employing this strategy.

In the meantime, the industry is being forced to suffer yet another deflationary trend – of which the RBOCs are unquestionably the losers. The RBOCs argue that the expansion of UNE-P as a means to create "artificial" (as they would see it) competition, is an unsustainable regulatory artifact. For the states however, positive consumer results as yet do not have matching offsets. The RBOCs argue that UNE-P will compel them to cut investment so, while prices may fall, the value equation to consumers will also fall over time given a likely decline in service quality. (Although the sustained period of below peer average capex seen at Ameritech, from 1993-1999, suggests that such quality of service issues do indeed arise but with a potentially long lag.) At the very least, the scene is set for some bitter battles as the RBOCs argue their case in front of federal and state regulators and through the courts.



2. UNE-P 101

Before we begin our discussion of the impact of UNE-P on RBOC profitability, we believe it is important to provide a little background on the history and evolution of wholesale offerings of local exchange service since the Telecommunications Act of 1996. In addition, we will discuss what the RBOCs will receive in return for opening their local systems (access to the inregion interLATA long distance market) and the status of the Section 271 fillings.

The 1996 Act - The Birth of UNEs

The Telecommunications Act of 1996 requires all local exchange carriers (LECs) to interconnect and offer competitors the ability to resell their services. Further, the Act requires that all ILECs offer their local services to competitive carriers at wholesale rates. The Telecom Act essentially developed two methodologies allowing an ILEC's competitor to offer local service:

- 1) by resale, which is priced at a 15% to 25% discount depending on the state or;
- 2) through the use of UNEs, including an unbundled network element platform (UNE-P). When UNEs are completely rebundled into a UNE-P we estimate it is priced at a national average discount of 43.7% from retail rates, again depending on the state.

Why the two different methodologies?

■ Pricing Unbundled Network Elements

The FCC, supported by the courts, has determined that the Telecom Act mandates an ILEC to provide unbundled network elements in a way that allows a competitor to recombine the elements in order to provide local service. The 1996 Act specifically states that unbundled elements must be priced at rates that are considered "just and reasonable" and must also be based on the cost of providing that element plus a reasonable profit. As such, the FCC, in its *Local Competition Order*, established guidelines for setting the prices for UNEs and determined that the prices would not be based on historic costs, but rather the "hypothetical" costs of an efficient, modern network.

In order to set pricing for unbundled network elements, the FCC developed a pricing methodology called total element long run incremental cost, or TELRIC. TELRIC pricing only looks at the incremental, forward looking cost of a hypothetically, ideally efficient, state of the art network. The TELRIC pricing scheme has been a highly contentious (and heavily litigated) issue since the FCC implemented the pricing methodology in its *Local Competition Order* in August of 1996.

Within months after the FCC released its *Local Competition Order*, the pricing rules were appealed and in July 1997 were stayed by the U.S. Court of Appeals for the Eighth Circuit and were ultimately vacated. The decision was appealed to the U.S. Supreme Court. In January 1999, the U.S. Supreme Court ruled that the FCC did have jurisdiction to set the TELRIC pricing rules and remanded the decision back to the Eighth Circuit. On July 18, 2000 the Eighth Circuit overturned the FCC's TELRIC pricing methodology for UNEs. Once again the Eighth Circuit's decision was appealed to the U.S. Supreme Court. And on May 13, 2002, the U.S. Supreme Court upheld the FCC's TELRIC methodology for pricing UNE's. In addition, the Court also upheld the FCC's authority to mandate that ILECs recombine UNEs for competitive carriers.

■ Pricing Resale

On the other hand, ILEC services resold by competitors are priced at a level that represents an incumbent's actual avoided cost (i.e., marketing, billing, collection



and other costs avoided by the ILEC) by providing the complete local service package, including the loop, switch, and transport combination to a competitor. "Avoided cost" is the resale standard and not the UNE standard, which is cost plus reasonable profit. While the reselling methodology seems to have required a competitor to resell the entire service, the UNE methodology was put in place to allow competitors to lease each individual piece of local service at a TELRIC price. Thus, the logic went, the UNE methodology would encourage competitors to build their own facilities over time and lease on a UNE/TELRIC basis just the elements of the network that they had yet to build out. The underlying premise was that the competitor would eventually wean itself off of the ILEC network as it built its own facilities. Both AT&T and WorldCom have large installed local facilities through their Teleport and MFS acquisitions, respectively. However, these facilities serve business customers and not the residential markets.

Currently, the RBOCs are primarily facing residential facility based intermodal competition from cable and wireless companies. However, a cable company having the ability to offer plain old telephone service has no bearing on whether another CLEC would be impaired without access to the ILECs UNEs. The absence or presence of competition has little relevance to the UNE issue. The Telecom Act states that the ILEC must provide a CLEC a UNE if the CLEC would be impaired in its ability to provide service.

The difference in the two methodologies (resale and UNE-P) creates an opportunity for competitors to play a game of regulatory arbitrage. By rebundling the UNEs into UNE-P, a competitor receives the same package for resale at a significantly steeper discount. Resale represents a discount in the range of 15% to 25%, while UNE-P (which allows a competitor to offer the same service as under the resale scheme) provides, based on our estimates, a 43.7% discount from retail rates. In addition, (and very importantly) switched access charges and the subscriber line charge revenue accrue to the competitor with a UNE-P and to the ILEC with resale further enhancing the economics of using UNE-P over resale.

Switched Access Charges

Given that all of the elements of the UNE bundle are rebundled, a competitor can essentially offer the same service as if it were leasing the ILEC local infrastructure on a resold basis but at a significantly lower rate. In addition to the lower rates provided under the UNE-P scheme, there are other significant economic benefits to leasing facilities under UNE-P versus the reseller model. A reseller only has the right to resell local exchange service, thus the reseller does not resell the highly profitable switched exchange access service. However, under the UNE-P methodology, the competitive carrier is also able to "re-bundle" switched exchange access service. Given that roughly 35% to 40% of an RBOC's network access revenue is derived from switched access, it is likely that network access revenue among the RBOCs will also be under pressure as the demand for UNE-P increases.

■ Subscriber Line Charge

In October 2001 the FCC's CALLS plan allowed the local telephone companies to increase the maximum amount that may be charged to subscribers for the Subscriber Line Charge (SLC). The SLC is charged to local customers allowing the ILEC to recover some of providing local service. This is not a tax but straight revenue as the money goes directly to the ILEC. The SLC currently stands at a national average rate of \$5.50 per residential line and is capped at \$6.00 per line. The SLC is likely to be increased to \$6.50 per line on July 1, 2003. Currently 19 states have an SLC that is below the \$6.00 per line cap, with California and Washington D.C. at the lowest rates of \$4.40 and \$3.87, respectively.

The competitive carrier is not required to charge the end user the SLC when leasing incumbent facilities under the UNE-P pricing scheme. However, the ILEC does have to charge the SLC. This adds an additional (and clearly relatively



material) cost to the ILEC offering local service on a retail basis and further improves the re-bundlers ability to attract residential subscribers using the UNE-P wholesale scheme with lower overall prices than an incumbent player.

With respect to reselling local service, the ILEC was able to charge the reseller the SLC, given that once the line was leased to competitive carrier the ILEC no longer had contact with the end customer and thus could no longer charge the SLC to the end user. This is an additional cost that re-bundlers of UNEs do not have to incur, thus further enhancing the attractiveness of leasing on UNE-P.

What are the Components of a UNE?

The Telecom Act says that, in determining what elements of the ILEC's network must be bundled, the FCC should consider whether the competitor would be "impaired" without having access to the element. Originally, in its *Local Competition Order* issued in August 1996, the FCC identified seven elements of the network that an ILEC must make available on an unbundled basis to competitive carriers. The seven elements include:

- 1. Network Interface Device: The FCC required the local telephone company to unbundle and provide access to the network interface device (NID). The NID is the piece of equipment that is used to connect the loop to the inside wiring of a customer's premises.
- 2. Local Loop: The FCC determined that the loop included access to two- and four-wire analog voice grade loops and the two- and four-wire loops conditioned to offer advanced service (e.g., DSL).
- 3. Local and Tandem Switching:
 - Local switching capability: The FCC defines local switching as the lineside and trunk-side facilities plus the features, functions and capabilities
 of the switch. The line side facilities are defined as the connection
 between a loop termination and a switch line card. The trunk facility
 requirement is similar and includes situations such as trunk termination at
 a trunk-side cross-connect panel and a trunk card. The features functions
 and capabilities of a local switch include the basic switching functions
 lines and trunks. As a part of the switching function, the ILEC also must
 make basic switching features available to the competitor, including a
 telephone number, directory listing, dial tone, signaling, access to 911,
 operator services, and directory assistance.
 - Tandem switching capability: Tandem switches are used to connect trunks and provide switching between end offices. The FCC defines the tandem switch element as follows, "the facilities connecting the trunk distribution frames to the switch, and all of the functions of the switch itself, including those facilities that establish a temporary transmission path between two other switches. Functionality of a tandem switch (including call recording, the routing of calls to operator services and signaling conversion functions) is also considered part of the tandem switching element.
- 4. Interoffice Transmission Facilities: These facilities include shared transmission facilities between end offices and the tandem switch. In addition it includes dedicated transmission between the ILEC's central office and comparable facilities of the competing carrier. At a minimum the FCC mandated that the LEC would have to provide access to interoffice facilities between end offices and serving wire centers (SWCs), SWCs and IXC POPs, tandem switches and SWCs, end offices or tandems of the ILEC, and the wire centers of the ILECs and requesting carriers. The ILEC is also required to provide "all technically feasible transmission capabilities, such as DS1, DS3 and optical carrier levels that a competing provider could use to provide telecommunications services".



5. Signaling and Call Related Database Facilities:

- Signaling links and signaling call transfer points: An ILEC runs a signaling network along side its voice network. The signaling network provides transport information associated with an individual call.
- Call-related databases: This requirement mandates an ILEC to provide
 a competitive carrier access to call-related databases, which are used for
 billing and collection, transmission, routing and other provisioning of a
 telecom services. In addition, the ILEC is required to provide access to
 the line information database, the toll free calling database, and number
 portability downstream databases.
- Service management system: This requirement mandates an ILEC to provide a competitive carrier access and the ability to create and modify the call related databases.
- 6. Operations Support Systems and Information: According to the Local Competition Order, the ILEC must also provide a competitive carrier nondiscriminatory access to its operation support systems (OSS). The OSS is the computerized system used by the ILEC for preordering, ordering, provisioning, maintenance and repair, and billing. Providing nondiscriminatory access to the OSS has typically been an RBOCs main stumbling block with respect to securing Section 271 relief in order to offer in-region interLATA long distance service in return for opening up its local facilities to competition.
- 7. Operator Services and Directory Assistance Facilities: The Local Competition Order required an ILEC to open its operator assistance facilities to competitors on a UNE basis. In addition, the LEC was required to unbrand and rebrand the service as requested. Finally, the LEC was also mandated to open its directory assistance databases allowing a competitor to read and modify the database as needed.

In addition to these elements that were specifically outlined by the FCC to be made available on an unbundled basis to competitive carriers, the commission left the list somewhat open-ended by enabling the states to add other elements to the list whenever a state regulator believed it was "technically feasible" to do so.

■ Unfortunately, The UNE Story Does Not End There!

In AT&T v. Iowa Utilities Board (1999), the U.S. Supreme Court vacated the FCC's unbundling rules given that, in the Court's judgement, the Commission did not impose a limiting standard as to what should be included in the UNE bundle as mandated in the '96 Telecom Act.

In essence, the Court ruled that the FCC's definition of "impairment" was too broad and remanded the issue back to the FCC. In the FCC's 1999 *UNE Remand Order*, the Commission did not redefine the word impair in order to impose a limit as the Court was looking for, but rather the FCC slightly changed its previous definition to include the words "materially impair" as part of the definition for determining which elements would be included in the UNE bundle.

The FCC did ultimately pull one element off of the list (operator services and directory assistance services), but its original list remains largely intact. The other limiting factor that FCC imposed in its 1999 *UNE Remand Order* was a limit on access to circuit switching. The FCC determined that competitors would not be "impaired" without access to circuit switching and limited the use of unbundled local switching in Density Zone 1 of the top 50 Metropolitan Statistical Areas (MSAs) to residential customers and businesses with less than four lines.

In fact, the FCC used the *UNE Remand Order* to increase the number of elements on the list. The FCC expanded its definition of the local loop to include dark fiber, high-capacity loops and sub-loop unbundling as part of the FCC's 1999 *Line Sharing Order*. This means that the FCC mandated that the incumbent provider



had to open the high frequency portion of its copper loop to unbundling as a network element. In essence the RBOCs were required to open the portion of the local loop that they used to offer DSL service.

On July 19, 2000 a petition was filed with the U.S. Court of Appeals for the D.C. Circuit asking for a review of the *UNE Remand Order* and the *Line Sharing Order*. The D.C. Circuit granted the FCC's request to hold the two appeals in abeyance given that the FCC agreed to act "expeditiously" on reconsideration of the two petitions. On January 19, 2001 the FCC issued its *Line Sharing Reconsideration Order*. The FCC clarified several of its positions in the order including that line sharing applies to the entire loop even where the ILEC has deployed fiber in the loop.

Ultimately (are you still with us here dear reader!?), on May 24, 2002, the D.C. Circuit vacated the FCC's 1999 *Line Sharing Order* and remanded the *UNE Remand Order*, which gave a competitor offering data services access to the high frequency portion of the loop without having to lease the entire loop. The court cited competition from companies offering high-speed data service as the main reason for vacating the FCC's line-sharing order. Predictably, on July 10, 2002 the FCC asked the D.C. Circuit to rehear its decision vacating the FCC's order on DSL line sharing.

Most recently, on September 6th, the D.C. circuit rejected the FCC's request for rehearing of the May 24th decision. Notably, the court stayed the effective date of the decision to January 2, 2003, at which time the FCC is expected to complete the triennial review of its unbundling rules.

While these issues seem set to continue to churn through the courts, we believe the RBOCs will continue to make concessions to state regulators with respect to the pricing of UNEs and which elements are to be unbundled as a significant number of Section 271 applications will be considered by the FCC over the next six to twelve months. However, it is clear that RBOCs will continue to dig in their heels with respect to unbundling of new investments and providing competitors access to the high frequency portion of the local loop.

Indeed, we suspect that the combination of increased revenue pressures being felt by SBC and BellSouth in particular, allied with the broader review of UNE policy being consulted as a function of the FCC's triennial review, will mean the RBOCs (SBC most of all) take a very high profile arguing, in part, against the principle of the UNE system but more so on the basis for setting prices. And as part of that argument, the RBOCs will seek to promote to the FCC that at the least the number of mandated UNE elements be cut – thus potentially killing the UNE-P as a viable mechanism to compete for residential local service.



What is the Reward for Opening the Local Loop?

Once the RBOC has proven to state regulators and crucially to the FCC that it has complied with the 14 points on the competitive checklist and has proven to the Department of Justice that its local infrastructure is "irreversibly" open to competition, it is allowed to begin offering in-region interLATA long distance service. (Note there is no market share test at all – no competition actually needs to exist, rather a long set of criteria must be met that allow the regulators to conclude that competitors would be dealt with fairly.) The Telecommunications Act of 1996 delineated 14 points that the RBOCs have to satisfy in order to prove that its local network is open to competition. The "competitive checklist" is as follows.

■ 14 Point Competitive Checklist

- 1. Reasonably priced interconnection of equal quality.
- Access to network elements on an unbundled basis at non-discriminatory rates based on cost and a reasonable profit.
- 3. Access to poles, conduits and rights-of-way.
- 4. Right to lease unbundled local loops.
- 5. Right to lease unbundled local transport.
- 6. Right to lease unbundled local switching.
- 7. Access to 911 and directory assistance.
- White pages directory listing for competitor customers.
- 9. Nondiscriminatory access to telephone numbers.
- 10. Access to databases and network signaling needed for call routing.
- 11. Number portability.
- 12. Local dialing parity.
- 13. Reciprocal compensation for local termination.
- 14. Availability of all services at wholesale rates to resellers.

In addition to going through the competitive checklist, the state regulators and the FCC have used the wide latitude of the 1996 Act with respect to the Section 271 application process to engage in a sort of horse trading in order to encourage the RBOCs to "voluntarily" agree to lower UNE rates in order to receive in-region interLATA long distance approval. And to a large degree, the process has worked as the regulators seem to have intended. UNE rates over the past several months have been cut dramatically in several large states in front of 271 relief.

Given that there has been a significant pick-up in the number Section 271 filings, the UNE issue has taken on more significance as the states and the FCC have both used UNE-P pricing as carrot (or stick, depending on which side you are on) in order to allow the RBOCs to successfully complete 271 applications and begin offering in-region interLATA long distance service. Further there has been evidence that the state regulators of smaller states look to larger ones to provide guides to, or validate the UNE price levels. As such, the wave of 271 approvals we expect in the next twelve months could thus bring with it a slew of UNE rate decisions that mirror precedent setters such as those in New York and more recently California.

Table 1 provides an update as to where the FCC stands with respect to 271 applications which have either been approved, pending or as yet to be filed.

We believe BellSouth and Verizon Communications have the best chance to secure Section 271 relief in all of their states within the next six months. In its second quarter 10Q, SBC stated that it believed that the California PUC would



hand down a ruling by the end of August. The California PUC ruled on September 20, allowing SBC to file with the FCC on the same day. Strategically and financially, California is important to SBC as it represents nearly one-third of SBC's access lines. In the Midwest, SBC is gradually working the Section 271 process with state authorities and should be in a position to file with the FCC for the former Ameritech states in 2003. Finally, Qwest has recently withdrawn nine applications that it had filed with the FCC for Section 271 relief. Qwest anticipates re-filing all nine of these applications by the end of September. In addition, we believe Qwest will file its remaining applications in six months.

| Approved | | | | | | | |
|---------------|----------------------|------------------|------------------------|------------------------|----------------------|--------------|------------------------|
| SBC | Date Approved | <u>BellSouth</u> | Date Approved | Verizon Communications | Date Approved | Qwest | Date Approved |
| Texas | Jul-00 | Georgia | May-02 | New York | Dec-99 | None | N/A |
| Kansas | Mar-01 | Louisiana | May-02 | Massachusetts | Apr-01 | | |
| Oklahoma | Mar-01 | Alabama | Sep-02 | Connecticut | Jul-01 | | |
| Arkansas | Nov-01 | Kentucky | Sep-02 | Pennsylvania | Sep-01 | | |
| Missouri | Nov-01 | Mississippi | Sep-02 | Rhode Island | Feb-02 | | |
| | | North Carolina | Sep-02 | Vermont | Apr-02 | | |
| | | South Carolina | Sep-02 | Maine | Jun-02 | | |
| | | | | New Jersey | Jun-02 | | |
| Pending | | | | | | | |
| SBC | Decision Date | BellSouth | Decision Date | Verizon Communications | Decision Date | Qwest | Decision Date |
| California | 19-Dec-02 | Florida | 19-Dec-02 | Delaware | 25-Sep-02 | None | N/A |
| | | Tennessee | 19-Dec-02 | New Hampshire | 25-Sep-02 | | |
| | | | | Virginia | 30-Oct-02 | | |
| Not Yet Filed | | | | | | | |
| SBC | Est Filing Date | BellSouth | Est Filing Date | Verizon Communications | Est Filing Date | Qwest | Est Filing Date |
| Nevada | 1Q03 | None | N/A | Maryland | 4Q02 | Colorado | 3Q02 |
| Illinois | 3Q03 | | | West Virginia | 4Q02 | Idaho | 3Q02 |
| Indiana | 4Q03 | | | D.C. | 4Q02 | lowa | 3Q02 |
| Michigan | 1Q03 | | | | | Nebraska | 3Q02 |
| Ohio | 2Q03 | | | | | North Dakota | 3Q02 |
| Wisconsin | 3Q03 | | | | | Montana | 3Q02 |
| | | | | | | Utah | 3Q02 |
| | | | | | | Washington | 3Q02 |
| | | | | | | Wyoming | 3Q02 |
| | | | | | | New Mexico | 4Q02 |
| | | | | | | Oregon | 4Q02 |
| | | | | | | South Dakota | 4Q02 |
| | | | | | | Arizona | 1Q03 |
| | | | | | | Minnesota | 1Q03 |

Source: Company reports and Merrill Lynch estimates



3. Who is Using UNE-P?

Until recently, it was difficult for a CLEC to profitably use any of the wholesale pricing schemes to compete in the local telephone market. Now that the capital markets have effectively dried up for competitive telecom companies and many start-ups have filed for bankruptcy protection, there are only a handful of companies that are and will continue to use UNE-P in a material way in order to compete in the local loop ... AT&T and WorldCom through its MCI unit.

AT&T and MCI, the main factors

MCI was the first company to announce an aggressive plan using UNE-P in order to compete with the ILECs. Given WorldCom's financial struggles, only time will tell how effectively MCI will be able to continue to offer local service. However, over the next several months, we believe MCI will continue to take customers—not least since UNE-P is lease based and thus avoids the adverse capex requirements associated with a facilities based alternative. In WorldCom's cash flow focused modus operandi (during Chapter 11) we presume the constraints on further local service roll out, especially if they help protect existing long distance cash flows, will be limited.

AT&T has also recently become more aggressive competing for local customers. An indication as to how important a topic this is for AT&T (and investors) the company hosted a UNE workshop for members of the financial community in New Jersey on September 17th.

Finally, we suspect that Sprint FON will re-enter the local market under the UNE-P scheme. Sprint FON has previously tried to compete for local customers by using wholesale facilities provided by the RBOCs but backed away. It argued that it could not make the economics work based on the prices at that time. However, after Sprint FON exited the business, UNE-P prices have come down dramatically and we believe it may be just a matter of time before Sprint re-enters the market.

How Does the Local Competition Stack Up?

In April, MCI (partnered with Z-Tel) announced that it intended to enter the local market using UNE-P. The plan was branded the "The Neighborhood". MCI's Neighborhood plan offers "all you can eat" local and LD (plus vertical services) for \$49.95 to \$59.95 per month. MCI initiated the plan in 32 states (and it is available to 54MM households). The company says it will be offering the service in 42 states by year-end and 48 states within 12 months. Ultimately, MCI plans on targeting 85% of the US local telephony market.

Currently, MCI has 1.6MM local customers, which they hope to double by the end of the year. Since WorldCom's Chapter 11 filing these plans have not been publicly updated. Overall however "The Neighborhood" contributes to the impression of price erosion across the local business as players fight to protect what they have/fight to steal business from others in a market with limited overall growth. Further the introduction of flat rate plans, which of course have become increasingly popular and are very widely adopted in the wireless market, is an important feature for the wireline world. While local service is not usage based, of the total wireline local bill the majority of the profit comes from additional and usage based services (vertical services and long distance). By taking all of these into a single bundle, the consumer proposition is simplified ... to a degree that is arguably unattractive to RBOCs. However, there are some potential benefits to the RBOC, primarily with respect to bundling. If the RBOCs can offer a compelling bundle and reduce churn, the "all you can eat" type plans may help lower costs.

Besides the fact that head to head competition against this bundle could lead to a revenue loss for the ILEC, a shift in wireline customer behavior to embrace such



bundles is arguably "unhelpful" since it makes it harder to layer on (with an additional charge) additional value added services. Plus the likelihood of adverse selection means that the implications are for lower than anticipated interLATA LD revenues for the RBOCs as a higher usage customer will favor the CLECs flat rate alternative. While it has not yet released the data, Verizon Communications has indicated that early results from its Veriations bundle offering are positive to overall ARPU. Although it is not clear whether there is an overall EBITDA gain. We await, with interest, further reports of the economics of Verizon Communications' new bundle offerings.

AT&T has clearly caught the UNE-P fever. During the second quarter, AT&T Consumer Service began providing local phone service in Ohio and Illinois using UNE-P. AT&T also offers consumers the opportunity to add attractively priced long distance plans, such as AT&T Unlimited (although this is more targeted at stemming wireless substitution), and receive a single monthly bill. Including New York, Texas, Georgia and Michigan, AT&T Consumer Services offered local service in six states as of June 30 and served approximately 1.5MM local customers up from 1.3MM at the end of the first quarter. AT&T has already taken 7% market share in Michigan and mid-teens in New York using UNE-P. In addition, AT&T has indicated that it is EBITDA positive in New York.

Given the significant reduction in UNE-P rates in California, AT&T announced that it will enter the residential local phone market in California. California will be the seventh state where AT&T offers local telephone service. Again, AT&T will offer consumers the opportunity to sign up for the new plan and receive both local and long distance service on one bill. AT&T's lead offer is priced at \$19.95 per month and represents a 20% discount to SBC Pacific Bell's comparable Value Solution and Metro Plan priced together at \$24.95 per month. The \$19.95 offer will be available until November 15th.

We expect that AT&T will enter at least three more states by the end of the year (both Verizon Communications states). Management has indicated that it will enter New Jersey in September and we believe AT&T will begin offering local service in Pennsylvania and Massachusetts by the end of the year. AT&T is looking to enter states were the UNE-P discount relative to retail rates is in the 45% range. Our study indicates that AT&T will likely enter at least 16 additional states in the intermediate-term; moving the total to 26 states were AT&T local service will be sold to retail customers.

Sprint FON management was recently asked about the economics of local/LD "all you can eat" plans and suggested they were not viable, in their view, given its assessment that UNE rates are not at level to allow a profitable offering. Sprint FON previously offered local service in Texas and New York using UNEs but discontinued the plan because of poor returns. However, given the low cost of entry (AT&T spends \$2 to \$3MM to enter a state), and the recent reductions in UNE rates in several large states, we believe it may just be a matter of time before Sprint FON begins to offer local service using UNE-P.

That said, the RBOCs have done very well so far acquiring long distance customers without competing on price – e.g., SBC is now up to 30% share of residential long distance customers across its five Southwestern Bell states. The RBOCs have large incumbency advantages and much lower costs of long distance customer acquisition than we assume is the case for MCI and AT&T attacking them in local arena. Previously, we stated that our sense was that the impact on the RBOCs will be a negative but relatively small and that MCI will find this a tough business to gain traction. However, UNE rates continue to come down as the RBOCs accelerate Section 271 filings. And the pain looks like it will be worse than we had anticipated.



4. The Impact of UNE-P on the RBOCs

Over the past couple of years many of the competitive local exchange carriers have filed for bankruptcy protection or have simply gone out of business, leaving us with very few companies competing on a substantial basis in the local loop - both residential and business. Despite the dearth in the number of competitors in the local loop, we anticipate a continued acceleration in the number of lines lost by the RBOCs on a UNE-P basis to competitors. Over the next year, the major competitor is likely to be AT&T, given the relative strength of its balance sheet following the completion of the Comcast transaction. Given WorldCom's financial uncertainty, it is difficult to envision a strong MCI providing local service through its Neighborhood offering two years from now. Our findings indicate that the residential and small and medium enterprise business provides on average 65% of RBOC core wireline revenue and a little more than 60% of EBITDA. And, in addition, based on the current economics between residential retail revenue and UNE-P rates, we believe the RBOCs could lose more than 20% of their residential lines to competitive carriers by 2005.

Assessing the UNE impact

In our model, we estimate, on a state-by-state basis, the average spread between the all in local residential revenue (including intraLATA toll revenue) and the average UNE-P rate. This spread dictates the overall economics of whether a competitor will find it viable to offer service by obtaining an RBOC line as a UNE-P. There are several sources that provide a good proxy for UNE-P rates on a state-by-state basis. In this report, we used UNE pricing data provided by the National Regulatory Research Institute (NRRI) given that it has issued three reports over the past 18 months (Spring of 2001, January 2002, July 2002), which has allowed us to compare rates over that time period. Needless to say, rates in several major states have come down dramatically and thus enhance the competitive economics of leasing facilities to offer local service.

To determine the impact of UNE-P on RBOC profitability, we must first estimate a couple of other factors including the profitability of the RBOCs' retail residential local wireline operations. Secondly, we need to try to quantify the dollar amount of costs that the RBOCs can avoid when providing a line to a competitor as a UNE-P and is no longer responsible for customer service, billing, etc. Needless to say, we believe the lower UNE-P rates on the residential segment of the RBOCs' local operations will likely pressure profitability over the next several years. Our findings indicate that the residential and small and medium enterprise business provides on average 65% of RBOC core wireline revenue and a little more than 60% of EBITDA. And, in addition, based on the current economics between residential retail revenue and UNE-P rates, we believe the RBOCs could lose more than 20% of their residential lines to competitive carriers by 2005.

While we believe our analysis is useful for comparative purposes, we caution readers that, given the lack of data in some areas, we were required to simplify some of our analysis primarily with respect to using average residential retail and UNE-P rates. Not all access lines are equal in terms of revenue generation, cost of service or profitability. In addition, we used average state UNE-P rates despite the fact that UNE rates have been deaveraged, again for ease of comparability. Our analysis is intended to provide a view of the magnitude of the pressure that the RBOCs could face in its residential wireline business.



■ Retail Residential Pricing

The residential retail per line revenue is composed of several parts as we lay out in Table 2. Basic service generates the largest amount of revenue but provides very little profitability. Also included in local rates is the subscriber line charge (SLC). The SLC is charged to local customers allowing the ILEC to recover some of the costs of providing switched connections to long distance services. As we noted earlier, the SLC currently stands at a national average rate of \$5.50 per residential line and is capped at \$6.00 per line. In addition, using FCC and company data, we estimate access charges, vertical services and intraLATA toll revenue average roughly \$12.50 of per line revenue for residential local service. Adding in all of these components of the local bill we estimate that average residential phone bill, pre interLATA long distance is \$34.62.

We also estimate that interLATA long distance revenue will add another \$12 to the residential phone bill. Note that, in our analysis estimating RBOC revenue and profitability losses, we do not include the opportunity cost of lost interLATA LD.



| | Basic | | | Ачегаде | Access | Vertical | IntraLATA | Revenue |
|------------------------|---------|------|------|---------|--------|----------|-----------|----------|
| \$ per Line | Service | SLC | FUSF | Rates | Charge | Services | Toll | Per Line |
| BellSouth | | | | | | | | , |
| Alabama | 18.82 | 6.00 | 0.49 | 25.31 | 2.30 | 8.50 | 1.86 | 37.90 |
| Florida | 12.94 | 6.00 | 0.49 | 19.43 | 2.30 | 8.50 | 1.86 | 32.08 |
| Georgia | 19.34 | 6.00 | 0.49 | 27.64 | 2.30 | 8.50 | 1.86 | 40.29 |
| Kentucky | 21.69 | 6.00 | 0.49 | 28.18 | 2.30 | 8.50 | 1.86 | 40.83 |
| Louisiana | 15.72 | 6.00 | 0.49 | 22.21 | 2.30 | 8.50 | 1.86 | 34.86 |
| Mississippi | 21.02 | 6.00 | 0.49 | 27.51 | 2.30 | 8.50 | 1.86 | 40.16 |
| North Carolina | 13.32 | 6.00 | 0.49 | 19.81 | 2.30 | 8.50 | 1.86 | 32.46 |
| South Carolina | 14.35 | 6.00 | 0.49 | 20.84 | 2.30 | 8.50 | 1.86 | 33.49 |
| Tennessee | 15.55 | 6.00 | 0.49 | 22.04 | 2.30 | 8.50 | 1.86 | 34.69 |
| Qwest | | | | | | | | |
| Arizona | 15.27 | 6.00 | 0.56 | 21.83 | 2.30 | 8.50 | 1.86 | 34.48 |
| Colorado | 18.02 | 6.00 | 0.56 | 24.58 | 2.30 | 8.50 | 1.86 | 37.23 |
| Idaho | 17.46 | 6.00 | 0.56 | 24.02 | 2.30 | 8.50 | 1.86 | 36.67 |
| lowa | 11.59 | 4.72 | 0.56 | 16.96 | 2.30 | 8.50 | 1.86 | 29.61 |
| Minnesota | 16.69 | 4.89 | 0.56 | 22.14 | 2.30 | 8.50 | 1.86 | 34.79 |
| Montana | 18.30 | 6.00 | 0.56 | 24.86 | 2.30 | 8.50 | 1.86 | 37.51 |
| Nebraska | 22.39 | 5.16 | 0.56 | 28.11 | 2.30 | 8.50 | 1.86 | 40.76 |
| New Mexico | 12.65 | 6.00 | 0.56 | 19.21 | 2.30 | 8.50 | 1.86 | 31.86 |
| North Dakota | 17.69 | 6.00 | 0.56 | 24.25 | 2.30 | 8.50 | 1.86 | 36.90 |
| Oregon | 17.18 | 6.00 | 0.56 | 23.74 | 2.30 | 8.50 | 1.86 | 36.39 |
| South Dakota | 18.25 | 6.00 | 0.56 | 24.81 | 2.30 | 8.50 | 1.86 | 37.46 |
| Utah | 14.46 | 6.00 | 0.56 | 21.02 | 2.30 | 8.50 | 1.86 | 33.67 |
| Washington | 14.14 | 5.92 | 0.56 | 20.62 | 2.30 | 8.50 | 1.86 | 33.27 |
| Wyoming | 23.10 | 6.00 | 0.56 | 29.66 | 2.30 | 8.50 | 1.86 | 42.31 |
| SBC | | | | | | | | |
| Arkansas | 18.89 | 5.20 | 0.48 | 24.57 | 2.30 | 8.50 | 1.86 | 37.22 |
| California | 12.19 | 4.40 | 0.44 | 17.03 | 2.30 | 8.50 | 1.86 | 29.68 |
| Illinois | 16.81 | 4.49 | 0.37 | 21.67 | 2.30 | 8.50 | 1.86 | 34.32 |
| Indiana | 14.48 | 5.49 | 0.42 | 20.39 | 2.30 | 8.50 | 1.86 | 33.04 |
| Kansas | 13.90 | 5.20 | 0.48 | 19.58 | 2.30 | 8.50 | 1.86 | 32.23 |
| Michigan | 21.30 | 5.31 | 0.43 | 27.04 | 2.30 | 8.50 | 1.86 | 39.69 |
| Missouri | 14.93 | 5.20 | 0.48 | 20.61 | 2.30 | 8.50 | 1.86 | 33.26 |
| Nevada | 10.75 | 5.26 | 0.54 | 16.55 | 2.30 | 8.50 | 1.86 | 29.20 |
| Ohio | 14.57 | 5.35 | 0.42 | 20.34 | 2.30 | 8.50 | 1.86 | 32.99 |
| Oklahoma | 13.72 | 5.20 | 0.48 | 19.40 | 2.30 | 8.50 | 1.86 | 32.05 |
| Texas | 14.75 | 5.20 | 0.48 | 20.43 | 2.30 | 8.50 | 1.86 | 33.08 |
| Wisconsin | 22.31 | 5.03 | 0.23 | 27.57 | 2.30 | 8.50 | 1.86 | 40.22 |
| Verizon Communications | | | | | | 0.00 | 1.00 | 10.62 |
| Connecticut | 15.01 | 5.69 | 0.62 | 21.32 | 2.30 | 8.50 | 1.86 | 33.97 |
| D.C. | 16.35 | 3.87 | 0.57 | 20.79 | 2.30 | 8.50 | 1.86 | 33.44 |
| Delaware | 11.18 | 6.00 | 0.57 | 17.75 | 2.30 | 8.50 | 1.86 | 30.40 |
| Maine | 19.00 | 6.00 | 0.57 | 25.57 | 2.30 | 8.50 | 1.86 | 38.22 |
| Maryland | 20.31 | 5.69 | 0.57 | 26.57 | 2.30 | 8.50 | 1.86 | 39.22 |
| Massachusetts | 18.62 | 6.00 | 0.57 | 25.19 | 2.30 | 8.50 | 1.86 | 37.84 |
| New Hampshire | 14.11 | 6.00 | 0.57 | 20.68 | 2.30 | 8.50 | 1.86 | 33.33 |
| New Jersey | 9.14 | 6.00 | 0.57 | 15.71 | 2.30 | 8.50 | 1.86 | 28.36 |
| New York | 19.53 | 6.00 | 0.57 | 26.10 | 2.30 | 8.50 | 1.86 | 38.75 |
| Pennsylvania | 14.53 | 6.00 | 0.57 | 21.10 | 2.30 | 8.50 | 1.86 | 33.75 |
| Rhode Island | 19.14 | 6.00 | 0.57 | 25.71 | 2.30 | 8.50 | 1.86 | 38.36 |
| /ermont | 19.41 | 6.00 | 0.57 | 25.98 | 2.30 | 8.50 | 1.86 | 38.63 |
| /irginia | 23.99 | 6.00 | 0.57 | 30.56 | 2.30 | 8.50 | 1.86 | 43.21 |
| West Virginia | 21.56 | 6.00 | 0.57 | 28.13 | 2.30 | 8.50 | 1.86 | 43.21 |
| Vational Average | 15.98 | 5.50 | 0.50 | 21.97 | 2.30 | 8.50 | 1.86 | 34.62 |

Source: Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service (July 2002), Trends in Telephone Service (May2002), National Regulatory Research Institute (July 2002), RBOC Company Reports and Merrill Lynch estimates.



■ UNE-P Pricing

Initially, in 1996 and 1997, UNE prices were set on a negotiated or arbitrated basis between the incumbent carrier and the competitive carrier. In 1999 the FCC required that UNE rates be de-averaged on a minimum of three pricing density zones (urban, suburban and rural). This ruling set off the first round of re-pricing of UNEs. We are now in the second round of major price cuts for UNEs as the state regulators and the FCC engage in a sort of bartering with the RBOCs in order to grant them Section 271 relief in order to be able to offer in-region interLATA long distance service. In fact, in several cases, UNE pricing has posed a major stumbling block for FCC approval of an in-region InterLATA LD application. In response the RBOCs have "agreed" to further reductions of UNE rates in return for Section 271 relief.

In Tables 3 and 4, we provide NRRI's average state-by-state UNE-P rates for January 2002 and July 2002. As shown in Table 5, rates have come down dramatically in several states since the beginning of 2002. Most notably in BellSouth's service territory, basic UNE-P rates are down 16.2% in Kentucky. In Qwest's service territory basic UNE-P rates are down 20.0%, 21.1% and 21.9% in Colorado, Idaho and Iowa. In addition, several other states in Qwest's territory have significantly lowered basic UNE-P rates including Montana, North Dakota and Washington which are down 18.2%, 16.0% and 17.4%, respectively.

Over the past six months SBC has only been required to lower basic UNE-P rates in one state, California. However, California represents nearly one-third of SBC's access lines. The California PUC mandated that SBC lower its basic average UNE-P rate by 32.2%. SBC already has some of the lowest UNE-P rates in the nation in its Ameritech states.

Verizon Communications also had three state regulators mandate lower basic UNE-P rates over the past six months. Basic UNE-P rates have been lowered by 24.9% in Maine, 9.3% in New York (after lowering the basic UNE-P rate by 16.6% in 2001) and 18.0% in Rhode Island. At the end of 2001, Verizon Communications was also required to lower its New Jersey basic UNE-P rates by 42.4%. Given the significantly lower rates that Verizon Communications agreed to in New Jersey and Rhode Island in order to secure Section 271 relief, the state PUC in New York lowered Verizon Communications' rates. However, with lower rates in New York and New Jersey the worst may be behind Verizon Communications at this point. However, we would expect further rate reductions in Massachusetts, Pennsylvania, Virginia and Maryland.

SBC may face similar problems in Texas, given that the company recently agreed to significantly lower rates in California. Texas was the first state where SBC received Section 271 relief and thus provided a benchmark for additional rate proceedings in other SBC states. Given that the California PUC lowered California UNE rates below were Texas rates currently stand, it would not surprise us if the state regulators further reduced rates in Texas.



| # man line | Avg. Monthly | Port | Switching | Basic |
|--------------------------|--------------|-------|-----------|-------|
| \$ per line BellSouth | Loop Rates | Rates | Rates | UNE-F |
| | | | | |
| Alabama | 19.04 | 2.07 | 1.70 | 22.81 |
| Florida | 15.81 | 1.62 | 88.0 | 18.31 |
| Georgia | 16.51 | 1.85 | 1.63 | 19.99 |
| Kentucky | 20.00 | 2.61 | 2.56 | 25.17 |
| Louisiana | 17.31 | 2.55 | 2.10 | 21.96 |
| Mississippi | 21.26 | 2.11 | 2.38 | 25.75 |
| North Carolina | 15.88 | 2.19 | 1.70 | 19.77 |
| South Carolina | 17.60 | 1.65 | 1.05 | 20.30 |
| Tennessee | 14.92 | 1.89 | 0.80 | 17.61 |
| Qwest | | | | |
| Arizona | 21.98 | 1.61 | 2.80 | 26.39 |
| Colorado | 20.65 | 1.15 | 2.83 | 24.63 |
| Idaho | 25.52 | 1.34 | 2.90 | 29.76 |
| lowa | 20.15 | 1.15 | 2.13 | 23.43 |
| Minnesota | 17.87 | 1.08 | 1.81 | 20.76 |
| Montana | 27.41 | 1.45 | 2.90 | 31.76 |
| Nebraska | 15.79 | 1.37 | 4.13 | 21.29 |
| New Mexico | 20.50 | 1.38 | 1.11 | 22.99 |
| North Dakota | 19.75 | 1.27 | 2.50 | 23.52 |
| Oregon | 15.00 | 1.26 | 1.33 | 17.59 |
| South Dakota | 21.09 | 1.84 | 3.47 | 26.40 |
| Utah | 16.46 | 0.94 | 2.62 | 20.40 |
| Washington | 18.16 | 1.34 | 1.20 | |
| Nyoming | 25.65 | 1.53 | 3.75 | 20.70 |
| SBC Communications | 20.00 | 1.55 | 3.70 | 30.93 |
| Arkansas | 13.09 | 1.61 | 1.84 | 10.54 |
| California | 11.70 | 2.88 | 2.50 | 16.54 |
| llinois | 9.81 | 5.01 | | 17.08 |
| ndiana | 8.20 | 5.34 | 0.00 | 14.82 |
| Kansas | 14.04 | | 3.44 | 16.98 |
| Aichigan | | 1.61 | 1.84 | 17.49 |
| Missouri | 10.15 | 2.53 | 1.19 | 13.87 |
| Nevada | 15.19 | 2.11 | 2.19 | 19.49 |
| Dhio | 19.83 | 1.63 | 1.61 | 23.07 |
| Dklahoma | 7.01 | 4.63 | 3.23 | 14.87 |
| | 14.84 | 2.25 | 2.86 | 19.95 |
| exas | 14.15 | 2.90 | 2.12 | 19.17 |
| Visconsin | 10.90 | 3.71 | 3.45 | 18.06 |
| erizon Communications | | | | |
| Connecticut | 12.49 | 3.31 | 7.15 | 22.95 |
| I.C. | 10.81 | 1.55 | 3.00 | 15.36 |
| elaware | 12.05 | 2.23 | 2.78 | 17.06 |
| laine | 17.53 | 2.04 | 5.48 | 25.05 |
| laryland | 14.50 | 1.90 | 3.80 | 20.20 |
| lassachusetts | 14.98 | 2.00 | 3.30 | 20.28 |
| ew Hampshire | 17.99 | 2.22 | 7.92 | 28.13 |
| ew Jersey | 9.52 | 0.73 | 2.64 | 12.89 |
| ew York | 11.49 | 2.50 | 2.75 | 16.74 |
| ennsylvania | 13.81 | 2.67 | 1.71 | 18.19 |
| hode Island | 13.93 | 4.15 | 2.74 | 20.82 |
| ermont | 14.41 | 1.03 | 4.00 | 19.44 |
| irginia | 13.60 | 1.30 | 3.10 | 18.00 |
| 'est Virginia | 24.58 | 1.60 | 7.24 | 33.42 |



| | Avg. Monthly | Port | Switching | Basic |
|------------------------|---------------|-------|-----------|-------|
| \$ per Line | Loop Rates | Rates | Rates | UNE-P |
| BellSouth | | | | _ |
| Alabama | 19.04 | 2.07 | 1.70 | 22.81 |
| Florida | 15.81 | 1.40 | 0.77 | 17.98 |
| Georgia | 16.51 | 1.85 | 1.63 | 19.99 |
| Kentucky | 18.41 | 1.49 | 1.20 | 21.10 |
| Louisiana | 17.31 | 2.55 | 2.10 | 21.96 |
| Mississippi | 21.26 | 2.11 | 2.38 | 25.75 |
| North Carolina | 15.88 | 2.19 | 1.70 | 19.77 |
| South Carolina | 17.60 | 1.65 | 1.05 | 20.30 |
| Tennessee | 14.92 | 1.89 | 0.80 | 17.61 |
| Qwest | | | | |
| Arizona | 21.98 | 1.61 | 2.80 | 26.39 |
| Colorado | 15.85 | 1.86 | 2.00 | 19.71 |
| ldaho | 20.42 | 1.34 | 1.73 | 23.49 |
| lowa | 16.47 | 1.15 | 0.69 | 18.31 |
| Minnesota | 17.87 | 1.08 | 1.81 | 20.76 |
| Montana | 23.72 | 1.58 | 0.69 | 25.99 |
| Nebraska | 17.51 | 2.47 | 0.69 | 20.67 |
| New Mexico | 20.50 | 1.38 | 1.11 | 22.99 |
| North Dakota | 17.79 | 1.27 | 0.69 | 19.75 |
| Oregon | 15.00 | 1.26 | 1.33 | 17.59 |
| South Dakota | 21.09 | 1.84 | 3.47 | 26.40 |
| Utah | 16.13 | 0.94 | 2.62 | 19.69 |
| Washington | 14.56 | 1.34 | 1.20 | 17.10 |
| Wyoming | 23.39 | 2.64 | 3.69 | 29.72 |
| SBC Communications | | | | |
| Arkansas | 13.09 | 1.61 | 1.84 | 16.54 |
| California | 9.93 | 0.88 | 0.77 | 11.58 |
| llinois | 9.81 | 5.01 | 0.00 | 14.82 |
| ndiana | 8.20 | 5.34 | 3.44 | 16.98 |
| Cansas | 14.04 | 1.61 | 1.84 | 17.49 |
| Michigan | 10.15 | 2.53 | 1.19 | 13.87 |
| Missouri | 15. 19 | 2.11 | 2.19 | 19.49 |
| Nevada | 19.83 | 1.63 | 1.61 | 23.07 |
| Ohio | 7.01 | 4.63 | 3.23 | 14.87 |
| Oklahoma | 14.84 | 2.25 | 2.86 | 19.95 |
| exas | 14.15 | 2.90 | 2.12 | 19.17 |
| Visconsin | 10.90 | 3.71 | 3.45 | 18.06 |
| ferizon Communications | | | | |
| Connecticut | 12.49 | 3.31 | 7.15 | 22.95 |
| 0.C. | 10.81 | 1.55 | 3.00 | 15.36 |
| Pelaware | 12.05 | 2.23 | 2.78 | 17.06 |
| laine | 16.19 | 0.94 | 1.68 | 18.81 |
| laryland | 14.50 | 1.90 | 3.80 | 20.20 |
| lassachusetts | 14.98 | 2.00 | 3.30 | 20.28 |
| ew Hampshire | 17.99 | 2.22 | 7.92 | 28.13 |
| ew Jersey | 9.52 | 0.73 | 2.64 | 12.89 |
| ew York | 11.49 | 2.57 | 1.13 | 15.19 |
| ennsylvania | 13.81 | 2.67 | 1.71 | 18.19 |
| hode Island | 13.93 | 1.86 | 1.28 | 17.07 |
| ermont | 14.41 | 1.03 | 4.00 | 19.44 |
| irginia | 13.60 | 1.30 | 3.10 | 18.00 |
| est Virginia | 24.58 | 1.60 | 7.24 | 33.42 |



| | Avg. Monthly | Port | Switching | Basic |
|----------------------------|--------------|----------------|-----------|--------|
| PoliCouth | Loop Rates | Rates | Rates | UNE-P |
| BellSouth | | | | |
| Alabama Florida | 0.0% | 0.0% | 0.0% | 0.0% |
| | 0.0% | -13.6% | -12.5% | -1.8% |
| Georgia | 0.0% | 0.0% | 0.0% | 0.0% |
| Kentucky | -8.0% | -4 2.9% | -53.1% | -16.2% |
| Louisiana | 0.0% | 0.0% | 0.0% | 0.0% |
| Mississippi | 0.0% | 0.0% | 0.0% | 0.0% |
| North Carolina | 0.0% | 0.0% | 0.0% | 0.0% |
| South Carolina | 0.0% | 0.0% | 0.0% | 0.0% |
| Tennessee | 0.0% | 0.0% | 0.0% | 0.0% |
| Qwest | | | | |
| Arizona | 0.0% | 0.0% | 0.0% | 0.0% |
| Colorado | -23.2% | 61.7% | -29.3% | -20.0% |
| ldaho | -20.0% | 0.0% | -40.3% | -21.1% |
| lowa | -18.3% | 0.0% | -67.6% | -21.9% |
| Minnesota | 0.0% | 0.0% | 0.0% | 0.0% |
| Montana | -13.5% | 9.0% | -76.2% | -18.2% |
| Nebraska | 10.9% | 80.3% | -83.3% | -2.9% |
| New Mexico | 0.0% | 0.0% | 0.0% | 0.0% |
| North Dakota | -9.9% | 0.0% | -72.4% | -16.0% |
| Ore go n | 0.0% | 0.0% | 0.0% | 0.0% |
| South Dakota | 0.0% | 0.0% | 0.0% | 0.0% |
| Utah | -2.0% | 0.0% | 0.0% | -1.6% |
| Washington | -19.8% | 0.0% | 0.0% | -17.4% |
| Wyoming | -8.8% | 72.5% | -1.6% | -3.9% |
| SBC Communications | | 72.070 | 1.070 | -3.370 |
| Arkansas | 0.0% | 0.0% | 0.0% | 0.0% |
| California | -15.1% | -69.4% | -69.2% | -32.2% |
| llinois | 0.0% | 0.0% | n/a | 0.0% |
| ndiana | 0.0% | 0.0% | 0.0% | 0.0% |
| Kansas | 0.0% | 0.0% | 0.0% | |
| Michigan | 0.0% | 0.0% | 0.0% | 0.0% |
| Missouri | 0.0% | 0.0% | | 0.0% |
| Nevada | 0.0% | 0.0% | 0.0% | 0.0% |
| Ohio | 0.0% | 0.0% | 0.0% | 0.0% |
| Oklahoma | 0.0% | 0.0% | 0.0% | 0.0% |
| exas | 0.0% | | 0.0% | 0.0% |
| Visconsin | | 0.0% | 0.0% | 0.0% |
| Verizon Communications | 0.0% | 0.0% | 0.0% | 0.0% |
| Connecticut | 0.00/ | 0.004 | | |
| D.C. | 0.0% | 0.0% | 0.0% | 0.0% |
| Delaware | 0.0% | 0.0% | 0.0% | 0.0% |
| Maine | 0.0% | 0.0% | 0.0% | 0.0% |
| faryland | -7.6% | -53.9% | -69.3% | -24.9% |
| • | 0.0% | 0.0% | 0.0% | 0.0% |
| lassachusetts | 0.0% | 0.0% | 0.0% | 0.0% |
| ew Hampshire | 0.0% | 0.0% | 0.0% | 0.0% |
| ew Jersey | 0.0% | 0.0% | 0.0% | 0.0% |
| ew York | 0.0% | 2.8% | -58.9% | -9.3% |
| ennsylvania hoda laland | 0.0% | 0.0% | 0.0% | 0.0% |
| hode Island | 0.0% | -55.2% | -53.3% | -18.0% |
| ermont | 0.0% | 0.0% | 0.0% | 0.0% |
| irginia | 0.0% | 0.0% | 0.0% | 0.0% |
| est Virginia | 0.0% | 0.0% | 0.0% | 0.0% |



| Table 6: Notable Average Residential UNE-P % Price C | hange |
|--|-------|
| Spring '01 vs Jan '02 | 3- |

| | Avg. Monthly Loop Rates | Port Rates | Switching Rates | Basic UNE-P |
|------------------------|----------------------------|---------------|--------------------|----------------|
| BellSouth | | | | _ |
| Tennessee | -17.1% | 0.0% | 0.0% | -14.9% |
| Qwest | | 0.075 | 0.070 | 14.570 |
| Utah | -17.7% | 0.0% | 0.0% | -15.0% |
| Verizon Communications | , | 0.070 | 0.070 | -13,076 |
| New Jersey | -41.1% | -61.6% | -38.7% | -42.4% |
| New York | -22.4% | 0.0% | 0.0% | -16.6% |

The Economics of the Retail / Wholesale Spread

The spread between retail and UNE-P rates is the key factor driving the line loss to UNE-P for the RBOCs. Given that UNE-P rates have come down dramatically in several states these simple economics have improved significantly for competitive carriers over the past year.

In Table 7, we show our estimate of the spread between retail and wholesale rates on a state-by-state basis. Clearly the magnitude of the spread will dictate a competitors' likelihood of entering a state in order to provide local exchange service.

In order to estimate RBOC line loss to competitors, we used New York as the benchmark state. This is due to the fact that New York has been the most competitive state for local exchange service for the longest period of time. And according to FCC data, as of year-end 2001, 28% of the residential and small and medium enterprise business lines and 19% of total lines are currently being used under the UNE-P pricing scheme.

Based on observations made by AT&T in particular, we assume that if the spread between retail and wholesale pricing is 30% or less, the implied gross margin would be inadequate for competitors and thus there would be zero competitive penetration using UNE-P. Based on our estimates, there are five states that fall into this category, Arizona, Nevada, New Hampshire, West Virginia and Wyoming.

Next, we estimated that if the spread between retail and wholesale were between 30% and 40%; we would see 10% penetration by UNE-P lines in those states. Spreads of 40% to 50% would encourage competition up to 20% of lines and finally spread greater than 50% would encourage competition to aggressively enter and market services taking up to 30% of the incumbents residential lines.

Using this methodology our analysis indicates that SBC is particularly exposed to further revenue compression via UNE-P. We estimate that the UNE-P / retail spread in California (which represents approx. 1/3 of SBC's access lines) now stands at 61.0%. However UNE-P penetration in California, as of year end 2001, for residential and SME's was less than 1%!

Other states where we think the RBOCs are particularly exposed due to current low penetration and wider than average spreads between retail and wholesale rates include Georgia, Colorado, Oregon, Washington, Indiana, Ohio, Wisconsin, Massachusetts, New Jersey, Pennsylvania, Virginia and Maryland.



| \$ per Line | Retail | UNE-P | % Difference |
|-----------------------|--------|----------------|------------------|
| BellSouth | | | 70 Dillerence |
| Alabama | 37.96 | 22.81 | -39.9% |
| Florida | 32.08 | 17.98 | -44.0% |
| Georgia | 40.29 | 19.99 | -50.4% |
| Kentucky | 40.83 | 21.10 | -48.3% |
| Louisiana | 34.86 | 21.96 | -37.0% |
| Mississippi | 40.16 | 25.75 | -37.0% |
| North Carolina | 32.46 | 19.77 | -39.1% |
| South Carolina | 33.49 | 20.30 | |
| Tennessee | 34.69 | 17.61 | -39.4% |
| Qwest | 50.70 | 17.01 | -49.2% |
| Arizona | 34.48 | 25.20 | 22.50/ |
| Colorado | 37.23 | 26.39 | -23.5% |
| Idaho | 36.67 | 19.71 | -47.1% |
| lowa | | 23.49 | -35.9% |
| Minnesota | 29.61 | 18.31 | -38.2% |
| Montana | 34.79 | 20.76 | -40.3% |
| Nebraska | 37.51 | 25.99 | -30.7% |
| | 40.76 | 20.67 | -49.3% |
| New Mexico | 31.86 | 22.99 | <i>-</i> 27.8% |
| North Dakota | 36.90 | 19.75 | -46.5% |
| Oregon | 36.39 | 17.59 | -51.7% |
| South Dakota | 37.46 | 26.40 | -29.5% |
| Utah **- * * · | 33.67 | 19.69 | -41.5% |
| Washington | 33.27 | 17.10 | -48.6% |
| Wyoming | 42.31 | 29.72 | -29.8% |
| SBC Communications | | | |
| Arkansas | 37.22 | 16.54 | -55.6% |
| California | 29.68 | 11.58 | -61.0% |
| llinois | 34.32 | 14.82 | -56.8% |
| ndiana | 33.04 | 16.98 | -48.6% |
| Cansas | 32.23 | 17.49 | -45.7% |
| <i>M</i> ichigan | 39.69 | 13.87 | -65.1% |
| Missouri | 33.26 | 19.49 | -41.4% |
| Vevada | 29.20 | 23.07 | -21.0% |
| Ohio | 32.99 | 14.87 | -54.9% |
| Oklahoma | 32.05 | 19.95 | -37.8% |
| exas | 33.08 | 19.17 | -42.1% |
| Visconsin | 40.22 | 18.06 | -55.1% |
| erizon Communications | | | ******* |
| Connecticut | 33.97 | 22.95 | -32.4% |
| 0.C. | 33.44 | 15.36 | -54.1% |
| Pelaware | 30.40 | 17.06 | -43.9% |
| laine | 38.22 | 18.81 | -50.8% |
| laryland | 39.22 | 20.20 | -48.5% |
| lassachusetts | 37.84 | 20.28 | |
| ew Hampshire | 33.33 | 28.13 | -46.4% |
| ew Jersey | 28.36 | 12.89 | -15.6% |
| ew York | 38.75 | | -54.6% |
| ennsylvania | 33.75 | 15.19 18.19 | -60.8% |
| hode Island | 38.36 | | -46.1% |
| ermont | 38.63 | 17.07 | -55.5% |
| irginia | 43.21 | 19.44 | -49.7% |
| est Virginia | 40.78 | 18.00 33.42 | -58.3% -18.1% |

Source: Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service (July 2002), National Regulatory Research Institute (July 2002).



Avoided Costs

The FCC provides a detailed breakdown of the RBOC operating costs, which we show in full detail in tables 9 and 10. The line item cost that we believe the RBOCs will be able to mostly avoid is customer services. The FCC defines this cost as follows:

Customer Services: (a) This account shall include costs incurred in establishing and servicing customer accounts. This includes: (1) Initiating customer service orders and records; (2) maintaining and billing customer accounts: (3) collecting and investigating customer accounts, including collecting revenues, reporting receipts, administering collection treatment, and handling contacts with customers regarding adjustments of bills; (4) collecting and reporting pay station receipts; and (5) instructing customers in the use of products and services. (b) This account shall also include amounts paid by interexchange carriers or other exchange carriers to another exchange carrier for billing and collection services. Source: FCC

In Table 8, we show a scenario analysis assuming that the RBOC can save anywhere from 60% to 100% of these costs. At 100% we estimate that the RBOC would be able to avoid 14.0% of its cash operating costs, while at 60%, we estimate that the RBOC would be able to avoid 8.4% of the costs.

| Table 8: RBOC Avoided Cost Estimate (\$ in Thousands) | | | | | | | |
|---|------------|-----------|-----------|-----------|-----------|--|--|
| % of Avoided Cost Captured by RBOC | 100% | 90% | 80% | 70% | 60% | | |
| Customer Services | 7,273,402 | 6,546,062 | 5,818,722 | 5,091,381 | 4,364,041 | | |
| Total Cash Operating Expenses | 51,795,899 | | | | | | |
| % of Costs Avoided | 14.0% | 12.6% | 11.2% | 9.8% | 8.4% | | |

Source: FCC Statistics of Communications Common Carriers (2000/2001 Edition), dated Sept 2001 ML estimates

For the purposes of our central estimate model, we assume that the RBOCs will be able to avoid 90% of the costs that we have identified and this translates to roughly 12.5% of total cost avoided. This is the estimate that we then apply to assess UNE-P impact to RBOC profitability. Our sense is that this percentage estimate is consistent with our findings given that 12.5% cost avoidance implies roughly \$2.50 to \$3.00 of cost avoidance per line when an RBOC leases its facilities. It is our understanding, based on industry sources, that it costs a large telephone company approximately \$2 to \$3 to mail and process a customer's bill, therefore we believe 12.5% (or \$2.50 to \$3.00 per line) is a fair average estimate of cost avoidance. Another "sanity check" is that the resale discount is supposed to equal the "avoided cost". The state-by-sate resale discount is in the range of 15% to 25%. Table 14 shows the dollar amount, on a state-bystate basis, of our estimate of RBOC cost avoidance under UNE-P. One caveat on our 12.5% costs avoidance estimate is that the number may prove too high if the RBOCs pursue an aggressive advertising and/or telemarketing program in order to win back customers. In addition, our cost avoidance estimates also assumes that as competition increases the RBOCs will right size their operations to reflect access lines that are lost to competitors.



| (\$ in Thousands) | Total | Salaries | Benefits | Rents | Other |
|--|------------------|------------------|---------------|--------------|-----------------|
| Motor Vehicle Expenses | 585,444 | 49,897 | 10,449 | 112,386 | |
| Clearance - Motor Vehicle | 487,450 | <u>38,398</u> | <u>8,092</u> | 95,813 | <u>3</u> 45,147 |
| Net Balance - Motor Vehicle | 97,994 | 11,499 | 2,357 | 16,573 | 67,565 |
| Aircraft Expenses | 17,751 | 2,246 | 542 | 129 | 14,834 |
| Clearance - Aircraft | 860 | 0 | 0 | 0 | 860 |
| Net Balance - Aircraft | 16,891 | 2,246 | 5 4 2 | 129 | 13,974 |
| Tools and Other Work Equipment | 351,704 | 69,278 | 26,518 | 5,416 | 250,492 |
| Clearance - Tools and Other Work Equip | 300,830 | <u>35,928</u> | <u>15,149</u> | <u>4,269</u> | 245,484 |
| Net Balance - Tools and Other Work Equip | 50,874 | 33,350 | 11,369 | 1,147 | 5,008 |
| General Support | | | | | |
| Land and Building | 1,839,348 | 122,490 | 28,661 | 497,569 | 1,190,628 |
| Furniture and Artworks | 134,091 | 1,223 | 203 | 2,834 | 129,831 |
| Office Equipment | 266,719 | 52,309 | 12,952 | 70,989 | 130,469 |
| General Purpose Computers | 2,463,351 | 229,689 | <u>62,452</u> | 256,035 | 1,915,175 |
| Total General Support | 4,703,509 | 405,711 | 104,268 | 827,427 | 3,366,103 |
| Central Office Switching | | | | | |
| Analog Electronic | 270,170 | 176,923 | 39,176 | 9,597 | 44,474 |
| Digital Electronic | 2,338,173 | 1,135,832 | 96,571 | 84,325 | 1,021,445 |
| Electro-Mechanical Electronic | <u>3,441</u> | <u>2,477</u> | 224 | 59 | 681 |
| Total Central Office - Switching | 2,611,784 | 1,315,232 | 135,971 | 93,981 | 1,066,600 |
| Operator Systems | 47,409 | 7,752 | 1,390 | 8,366 | 29,901 |
| Central Office Transmission | | | | | |
| Radio Systems | 15,570 | 8,557 | 1,935 | 307 | 4,771 |
| Circuit Equipment | 1,151,419 | 746,919 | 178,896 | 11,992 | 213,612 |
| Total Central Office - Transmission | 1,166,989 | 755,476 | 180,831 | 12,299 | 218,383 |
| nformation Orig/Term | | | | | |
| Station Apparatus | 461,429 | 54,564 | 30,468 | 2,258 | 374,139 |
| arge Private Branch Exchange | 255,368 | 60,985 | 21,295 | 390 | 172,698 |
| Public Telephone Terminal Equipment | 241,840 | 86,919 | 23,289 | 8,626 | 123,006 |
| Other Terminal Equipment | <u>2,775,817</u> | <u>1,187,058</u> | 266,759 | 11,194 | 1,310,806 |
| Total Information Orig/Term | 3,734,454 | 1,389,526 | 341,811 | 22,468 | 1,980,649 |
| Cable and Wire Facilities | | | | | |
| Pole | 310,448 | 18,220 | 3,784 | 217,959 | 70,485 |
| Aerial Cable | 2,892,771 | 1,918,447 | 430,933 | 32,671 | 510,720 |
| Inderground Cable | 803,613 | 512,505 | 105,898 | 17,041 | 168,169 |
| Buried Cable | 2,826,472 | 1,589,098 | 349,673 | 13,289 | 874,412 |
| Submarine Cable | 481 | 212 | 33 | 5 | 231 |
| Deep Sea Cable | 83 | 11 | 2 | 68 | 2 |
| ntrabuilding Network Cable | 56,227 | 39,419 | 9,262 | 488 | 7,058 |
| Aerial Wire | 8,273 | 4,923 | 1,024 | 200 | 2,126 |
| Conduit Systems | 185,465 | <u>-22,016</u> | -12,208 | 38,913 | 180,776 |
| otal Cable and Wire | 7,083,833 | 4,060,819 | 888,401 | 320,634 | 1,813,979 |

Source: FCC Statistics of Communications Common Carriers (2000/2001 Edition), dated September 2001



| (\$ in Thousands) | Total | Salaries | Benefits | Rents | Othe |
|--|---------------------------|--------------------|------------------|----------|---------------------|
| Provisioning | 371,997 | 89,581 | 16,948 | 0 | |
| Clearance - Provisioning | 302,364 | 68,736 | | 0 | |
| Net Balance - Provisioning | 69,633 | 20,845 | 2,966 | 0 | |
| Power | 454,163 | 210 | 36 | 0 | 453,91 |
| Network Administration | 623,207 | 499,695 | 111,132 | 0 | |
| Testing | 1,928,186 | 1,466,548 | 333,266 | 0 | |
| Plant Operations Administration | 3,941,938 | 2,599,397 | 494,500 | 0 | 848,04 |
| Clearance – Plant Operations Admin | <u>1,796,651</u> | 1,380,968 | 285,587 | 0 | 130,09 |
| Net Balance - Plant Operations Admin | 2,145,287 | 1,218,429 | 208,913 | ō | 717,94 |
| Engineering | 1,514,216 | 767,693 | 152,944 | 0 | 593,57 |
| Clearance - Engineering | 279,538 | 192,676 | 29,024 | <u>0</u> | 57,83 |
| Net Balance - Engineering | 1,234,678 | 575,017 | 123,920 | 0 | 535,74 |
| Access | 3,596,504 | 3 | 2 | 0 | 3,596,49 |
| Marketing | | | | | |
| Product Management | 1,542,661 | 267,214 | 50,959 | 0 | 1,224,48 |
| Sales | 2,487,461 | 815,385 | 156,366 | 0 | 1,515,71 |
| Product Advertising | <u>729,197</u> | <u>8,797</u> | <u>4,165</u> | Ō | <u>716,23</u> |
| Total Marketing | 4,759,319 | 1,091,396 | 211,490 | 0 | 3,456,43 |
| Services | | | | | |
| Call Completion Services | 350,526 | 204,645 | 55,996 | 0 | 89,88 |
| Number Services | 1,295,829 | 710,085 | 161,895 | 0 | 423,84 |
| Customer Services | 7,273,402 | 3,426,758 | <u>810,880</u> | <u>0</u> | 3,035,76 |
| Total Services | 8,919,757 | 4,341,488 | 1,028,771 | 0 | 3,549,49 |
| Corporate Operations | | | | | |
| Executive and Planning | | | | | |
| Executive | 467,485 | 91,528 | 24,427 | 0 | 351,530 |
| Planning Fotal Executive and Planning | <u>128,518</u> 596,003 | 18,094 | <u>5,406</u> | 0 | 105,018 |
| , and the second | 330,003 | 109,622 | 29,833 | 0 | 456,548 |
| General and Administrative Accounting and Finance | 967 427 | 220 201 | 005.00 | | 507.06 |
| External Relations | 857,427 793,305 | 220,381 198,563 | 69,788 50,545 | 0 | 567,258 |
| Human Resources | 929,667 | 199,306 | • • • • | 0 | 544,197 |
| nformation Management | 2,916,529 | 427,732 | 84,681 | 0 | 645,680 |
| egal | 414,232 | 427,732 | 99,865 10,149 | 0 | 2,388,932 |
| Procurement | 174,232 | 27,781 | 8,208 | 0 | 362,480 138,243 |
| Research and Development | 48,805 | 794 | 2,528 | 0 | |
| Other General and Administrative | 1,821,246 | 217,305 | 350,141 | 0 | 45,483 1,253,800 |
| otal General and Administrative | | 1,333,465 | 675,905 | 0 | 5,946,073 |
| Provision for Uncollectible Notes Rec. | -9 | 0 | 0 | 0 | -9 |
| otal Corporate Operations | 8,551,437 | 1,443,087 | 705,738 | 0 | 6,402,612 |

Source: FCC Statistics of Communications Common Carriers (2000/2001 Edition), dated September 2001



Profitability of RBOC Residential Local Business

The final piece of the puzzle is to estimate the profitability (on an EBITDA basis) of an RBOC's core residential wireline business. Both BellSouth and Verizon Communications provide a breakdown of wireline revenue from enterprise and residential customers. In addition, they both break out Switched Access revenues. As shown in Table 11, an RBOC, on average, generates 45% EBITDA margins in its core wireline business and based on the data provided by Verizon Communications and BellSouth, we estimate that on average 55% of an RBOCs core wireline revenue is generated by residential and SME customers and this has an EBITDA margin of approximately 35%. Under the UNE-P pricing scheme, Switched Access revenues associated with the line also goes to the competitor. Therefore, as shown in Table 12, we estimate that the portion of an RBOC's core wireline business that is most exposed to UNE-P (residential and SME) generates EBITDA margins of approximately 43.1%. In our model working through the profitability pressure from UNE-P, we assume the residential business generates 43.5% EBITDA margins.

Table 11: Revenue and EBITDA of Core Local Wireline Business (Assumes \$1 of Core Wireline Revenue)

| | % of Total Rev | Revenue EBI | Revenue EBITDA Margin | | |
|----------------------------|----------------|-------------|-----------------------|------|--|
| Enterprise | 17.0% | 0.17 | 55.0% | 0.09 | |
| Retail Residential and SME | 55.0% | 0.55 | 35.5% | 0.20 | |
| Network Access | | | 00.070 | 0.20 | |
| Switched | 10.0% | 0.10 | 85.0% | 0.09 | |
| Special | 15.0% | 0.15 | 50.0% | 0.08 | |
| Other | 3.0% | 0.03 | 5.0% | 0.00 | |
| Total | 100.0% | 1.00 | 45.0% | 0.45 | |

Source: Verizon Communications 2001 10K; BellSouth Company reports and Merrill Lynch estimates

Table 12: Revenue and EBITDA of Residential and SME Local Wireline Business (Assumes \$1 of Core Wireline Revenue)

| | % of Total | Revenue | Margin | EBITDA |
|-------------------------|---------------------|---------|--------|--------|
| Local Service | 84.6% | 0.55 | 35.5% | 0.20 |
| Switched Access | <u>15.4%</u> | 0.10 | 85.0% | 0.09 |
| Total Residential & SME | 100.0% | 0.65 | 43.1% | 0.28 |
| % of Total | . | 65.0% | | 62.2% |

Source: Verizon Communications 2001 10K; BellSouth Company reports and Merrill Lynch estimates.



Summary of Residential per Line Profitability (Retail and UNE-P)

In the tables below, we summarize the economics on per line basis of losing lines to UNE-P. Assuming that the RBOCs can avoid 12.5% of the costs associated with wholesaling a line and the EBITDA margins for retail residential service for the RBOC is 43.5%, we believe that in 14 states out of 49 (48 plus Washington D.C.) the RBOC will generate negative EBITDA under the UNE-P pricing scheme. In addition, assuming that the RBOC spends on average \$130 per line of capital expenditures, the RBOC will generate negative free cash flow in 47 of their states. Our results are in Tables 13 and 14.

Our estimate of \$130 per line of capex may prove a bit simplistic. Given the poor economics of the UNE-P pricing schemes, it is likely that the RBOCs may aggressively begin to cut capex in the local infrastructure to compensate for the lost profitability. Under a no growth revenue environment, we believe a steady state capex-to-sales level will probably settle in the 16% range. However, in a no growth scenario, we believe capex could decline to well below 16% of sales. Our analysis on the impact of UNE-P assumes capex remains at \$130 per access line.



| \$ per Line | Revenue | O&S Cost | EBITDA | Сарех | FC |
|---------------------------------------|----------------|----------|----------------|-------|------|
| BellSouth | | | | | |
| Alabama | 37.96 | 21.83 | 16.13 | 10.83 | 5.3 |
| Florida | 32.08 | 18.45 | 13.63 | 10.83 | 2.8 |
| Georgia | 40.29 | 23.17 | 17.12 | 10.83 | 6.2 |
| Kentucky | 40.83 | 23.48 | 17.35 | 10.83 | 6.5 |
| Louisiana | 34.86 | 20.05 | 14.82 | 10.83 | 3.9 |
| Mississippi | 40,16 | 23.09 | 17.07 | 10.83 | 6.2 |
| North Carolina | 32.46 | 18.67 | 13.80 | 10.83 | 2.9 |
| South Carolina | 33.49 | 19.26 | 14.23 | 10.83 | 3.4 |
| Tennessee | 34.69 | 19.95 | 14.74 | 10.83 | 3.9 |
| Qwest | 01.00 | 10.00 | (4,14 | 10.00 | 5.5 |
| Arizona | 34.48 | 19.83 | 14.65 | 10.83 | 3.8 |
| Colorado | 37.23 | 21.41 | 15.82 | 10.83 | 4.9 |
| Idaho | 36.67 | 21.09 | 15.59 | 10.83 | 4.7 |
| lowa | 29.61 | 17.03 | 12.58 | 10.83 | 1.7 |
| Minnesota | 34.79 | 20.00 | 14.79 | 10.83 | 3.9 |
| Montana | 34.73 37.51 | 21.57 | | | |
| Nebraska | 40.76 | | 15.94 17.32 | 10.83 | 5.1 |
| New Mexico | 31.86 | 23.44 | | 10.83 | 6.4 |
| North Dakota | | 18.32 | 13.54 | 10.83 | 2.7 |
| · · · · · · · · · · · · · · · · · · · | 36.90 | 21.22 | 15.68 | 10.83 | 4.8 |
| Oregon South Dakota | 36.39 | 20.92 | 15.47 | 10.83 | 4.6 |
| South Dakota | 37.46 | 21.54 | 15.92 | 10.83 | 5.0 |
| Utah Markin dan | 33.67 | 19.36 | 14.31 | 10.83 | 3.4 |
| Washington | 33.27 | 19.13 | 14.14 | 10.83 | 3.3 |
| Wyoming | 42.31 | 24.33 | 17.98 | 10.83 | 7.1: |
| SBC Communications | | | | | |
| Arkansas | 37.22 | 21.40 | 15.82 | 10.83 | 4.9 |
| California | 29.68 | 17.07 | 12.61 | 10.83 | 1.78 |
| llinois | 34.32 | 19.73 | 14.59 | 10.83 | 3.7 |
| Indiana | 33.04 | 19.00 | 14.04 | 10.83 | 3.2 |
| Kansas | 32.23 | 18.53 | 13.70 | 10.83 | 2.80 |
| Michigan | 39.69 | 22.82 | 16.87 | 10.83 | 6.0 |
| Missouri | 33.26 | 19.13 | 14.14 | 10.83 | 3.30 |
| Nevada | 29.20 | 16.79 | 12.41 | 10.83 | 1.58 |
| Ohio | 32.99 | 18.97 | 14.02 | 10.83 | 3.19 |
| Oklahoma | 32.05 | 18.43 | 13.62 | 10.83 | 2.79 |
| Texas | 33.08 | 19.02 | 14.06 | 10.83 | 3.23 |
| Wisconsin | 40.22 | 23.13 | 17.09 | 10.83 | 6.20 |
| erizon Communications | | | | | |
| Connecticut | 33.97 | 19.53 | 14.44 | 10.83 | 3.60 |
| D.C. | 33.44 | 19.23 | 14.21 | 10.83 | 3.38 |
| Delaware | 30.40 | 17.48 | 12.92 | 10.83 | 2.09 |
| Maine | 38.22 | 21.98 | 16.24 | 10.83 | 5.4 |
| Maryland | 39.22 | 22.55 | 16.67 | 10.83 | 5.84 |
| Massachusetts | 37.84 | 21.76 | 16.08 | 10.83 | 5.25 |
| lew Hampshire | 33.33 | 19.16 | 14.16 | 10.83 | 3.33 |
| lew Jersey | 28.36 | 16.31 | 12.05 | 10.83 | 1.22 |
| lew York | 38.75 | 22.28 | 16.47 | 10.83 | 5.64 |
| ennsylvania | 33.75 | 19.41 | 14.34 | 10.83 | 3.5 |
| Rhode Island | 38.36 | 22.06 | 16.30 | 10.83 | 5.47 |
| /ermont | 38.63 | 22.21 | 16.42 | 10.83 | 5.58 |
| /irginia | 43.21 | 24.85 | 18.36 | 10.83 | 7.53 |
| Vest Virginia | 40.78 | 23.45 | 17.33 | 10.83 | 6.50 |

Source: Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service (July 2002), Trends in Telephone Service (May 2002), RBOC Company reports and Merrill Lynch estimates.



| Avoided | | | | | | | | |
|-----------------------|---------|--------------|----------------|----------------|-----------------|----------------|-----------------|--|
| \$ per Line | Revenue | O&S | 0&S | EBITDA | Margin | Сарех | FCF | |
| BeliSouth | | * | | | | <u> </u> | | |
| Alabama | 22.81 | 2.73 | 19.10 | 3.71 | 16.3% | 10.83 | -7.12 | |
| Florida | 17.98 | 2.31 | 16.14 | 1.84 | 10.2% | 10.83 | -8.99 | |
| Georgia | 19.99 | 2.90 | 20.27 | -0.28 | -1.4% | 10.83 | -11.11 | |
| Kentucky | 21.10 | 2.93 | 20.54 | 0.56 | 2.6% | 10.83 | -10.28 | |
| Louisiana | 21.96 | 2.51 | 17.54 | 4.42 | 20.1% | 10.83 | -6.41 | |
| Mississippi | 25.75 | 2.89 | 20.21 | 5.54 | 21.5% | 10.83 | -5.29 | |
| North Carolina | 19.77 | 2.33 | 16.33 | 3.44 | 17.4% | 10.83 | -7.40 | |
| South Carolina | 20.30 | 2.41 | 16.85 | 3.45 | 17.0% | 10.83 | -7.38 | |
| Tennessee | 17.61 | 2.49 | 17.45 | 0.16 | 0.9% | 10.83 | -10.68 | |
| Qwest | | | | | 4.474 | 10.00 | 10.00 | |
| Arizona | 26.39 | 2.48 | 17.35 | 9.04 | 34.3% | 10.83 | -1.79 | |
| Colorado | 19.71 | 2.68 | 18.73 | 0.98 | 5.0% | 10.83 | -9.86 | |
| idaho | 23.49 | 2.64 | 18.45 | 5.04 | 21.5% | 10.83 | -5.79 | |
| lowa | 18.31 | 2.13 | 14.90 | 3.41 | 18.6% | 10.83 | -7.42 | |
| Minnesota | 20.76 | 2.50 | 17.50 | 3.26 | 15.7% | 10.83 | -7.58 | |
| Montana | 25.99 | 2.70 | 18.87 | 7.12 | 27.4% | 10.83 | -3.72 | |
| Nebraska | 20.67 | 2.93 | 20.51 | 0.16 | 0.8% | 10.83 | -10.67 | |
| New Mexico | 22.99 | 2.29 | 16.03 | 6.96 | 30.3% | 10.83 | -3.87 | |
| North Dakota | 19.75 | 2.65 | 18.57 | 1.18 | 6.0% | 10.83 | -9.65 | |
| Oregon | 17.59 | 2.62 | 18.31 | -0.72 | -4.1% | 10.83 | -11.55 | |
| South Dakota | 26.40 | 2.69 | 18.85 | 7.55 | 28.6% | 10.83 | -3.28 | |
| Utah | 19.69 | 2.42 | 16.94 | 2.75 | 14.0% | 10.83 | -8.08 | |
| Washington | 17.10 | 2.39 | 16.74 | 0.36 | 2.1% | 10.83 | -10.47 | |
| <i>N</i> yoming | 29.72 | 3.04 | 21.29 | 8.43 | 28.4% | 10.83 | -2.40 | |
| SBC Comm. | 20112 | 0.01 | 21,20 | 0.43 | 20.476 | 10.03 | -2.40 | |
| Arkansas | 16.54 | 2.68 | 18.73 | -2.19 | -13.2% | 10.83 | -13.02 | |
| California | 11.58 | 2.13 | 14.93 | -3.35 | -29.0% | 10.83 | -13.02 | |
| llinois | 14.82 | 2.47 | 17.27 | -2.45 | -16.5% | 10.83 | -13.28 | |
| ndiana | 16.98 | 2.37 | 16.62 | 0.36 | 2.1% | 10.83 | -13.28 | |
| (ansas | 17.49 | 2.32 | 16.22 | 1.27 | 7.3% | 10.83 | -9.56 | |
| Michigan | 13.87 | 2.85 | 19.97 | -6.10 | -44.0% | 10.83 | -16.93 | |
| Missouri | 19.49 | 2.39 | 16.73 | 2.76 | 14.1% | 10.83 | -8.08 | |
| Nevada | 23.07 | 2.10 | 14.69 | 8.38 | 36.3% | 10.83 | -2.46 | |
| Ohio | 14.87 | 2.37 | 16.60 | -1.73 | -11.6% | 10.83 | | |
| Oklahoma | 19.95 | 2.30 | 16.13 | 3.82 | 19.2% | 10.83 | -12.56 | |
| exas | 19.17 | 2.38 | 16.64 | 2.53 | 13.2% | 10.83 | -7.01 | |
| Visconsin | 18.06 | 2.89 | 20.24 | -2.18 | -12.1% | 10.83 | -8.31 -13.01 | |
| erizon Communications | 10.00 | 2.00 | 20.24 | -2.10 | -12.1/0 | 10.03 | -13.01 | |
| Connecticut | 22.95 | 2.44 | 17.00 | 5.96 | 2E E0/ | 10.83 | 4.00 | |
| D.C. | 15.36 | 2.40 | 17.09 16.83 | 5.86 -1.47 | 25.5% -9.5% | | -4.98 | |
| Delaware | 17.06 | 2.19 | 15.30 | 1.76 | | 10.83 | -12.30 | |
| Maine | 18.81 | 2.75 | 19.23 | -0.42 | 10.3% -2.2% | 10.83 | -9.07 | |
| Maryland | 20.20 | 2.82 | 19.73 | 0.47 | | 10.83 | -11.25 | |
| Massachusetts | 20.28 | 2.72 | | | 2.3% | 10.83 | -10.37 | |
| lew Hampshire | 28.13 | 2.72 | 19.04 16.77 | 1.24 | 6.1% | 10.83 | -9.59 | |
| lew Jersey | 12.89 | 2.40 | | 11.36 | 40.4% | 10.83 | 0.53 | |
| lew York | 15.19 | 2.79 | 14.27 19.50 | -1.38 -4.31 | -10.7% | 10.83 | -12.21 | |
| 'ennsylvania | 18.19 | 2.19 | 16.98 | | -28.4% | 10.83 | -15.14 | |
| thode Island | 17.07 | 2.43 2.76 | 19.30 | 1.21 | 6.6% | 10.83 | -9.62 | |
| ermont | 19.44 | 2.78 | 19.44 | -2.23 0.00 | ·13.1% | 10.83 | -13.06 | |
| irginia | 18.00 | 3.11 | 21.74 | -3.74 | 0.0% | 10.83 | -10.83 | |
| /est Virginia | 33.42 | 2.93 | 20.52 | -3.74 12.90 | -20.8% 38.6% | 10.83 10.83 | -14.57 2.07 | |

Source: Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service (July 2002), Trends in Telephone Service (May 2002), National Regulatory Research Institute (July 2002), RBOC Company reports and Mertill Lynch estimates.



2000/ 2001 YoY Estimated UNE-P Impact

Now that we have described our methodology, we estimate the impact that UNE-P had on 2001 operating results for the RBOCs.

In 2001, as shown in Table 15, UNE-P lines for the RBOCs grew by 93.4% for a total of 5.7MM lines being used by competitors of the RBOCs. BellSouth experienced the most dramatic increase in lines as UNE-P lines jumped by 169% to 602,000 lines. While this was the largest percentage increase, SBC experienced the largest absolute increase as UNE-P lines increased nearly 1.4MM lines of 137%. BellSouth's total number of UNE-P lines only increased by about 400K. Of the three pure RBOC's, Verizon Communications had the smallest percentage increase, only 30%, due to the fact that New York (Verizon Communications' largest state) is far and away the most competitive state with 28% of its residential and SME lines being resold under UNE-P as of year end 2001.

Table 15: UNF-P Lines

| | Total UNE-P | Lines | Residential and SME UNE-P Lines | | |
|------------------------|-------------|-------|---------------------------------|-------|--|
| In Thousands | 2000 | 2001 | 2000 | 2001 | |
| BellSouth | 224 | 602 | 112 | 217 | |
| Qwest | n/a | 453 | n/a | n/a | |
| SBC | 1,012 | 2,403 | 701 | 2,168 | |
| Verizon Communications | 1,687 | 2,195 | 1,408 | 1,739 | |
| Total UNE Lines | 2,923 | 5,653 | 2,221 | 4,124 | |

Source: FCC – Selected RBOC Local Telephone Data (December 2001 and 2001), RBOC Company Reports and Merrill Lynch estimates.

■ BellSouth

Given the relatively low number of lines being resold under UNE-P, we estimate that BellSouth only lost \$21MM of revenue and \$18MM of EBITDA due to UNE-P in 2001. This represents considerably less than 1% of BellSouth's 2001 revenue and EBITDA. We would point out that half of BellSouth's UNE-P lines are business, which have a much higher margin. For the other three RBOCs, UNE-P seems pretty well contained to residential customers. In addition, as we will show in the next section of the report, given the re-pricing of UNEs and the aggressive rollout of local offerings by AT&T and MCI, the losses are likely to accelerate over the next several quarters.

Table 16: BellSouth
YoY Revenue and EBITDA Loss for Residential and SME From UNE-P
2001 versus 2000

| _ | | Revenue | | | EBITDA | |
|-----------------|--------------|---------|---------------|--------------|-----------|---------|
| \$ in Thousands | Retail | UNE-P | Lost | Retail | UNE-P | Lost |
| Alabama | 3,363 | 2,021 | -1,342 | 1,429 | 329 | -1.100 |
| Florida | 8,645 | 4,934 | -3,711 | 3,674 | 585 | -3.090 |
| Georgia | 20,432 | 10,137 | -10,295 | 8,684 | -143 | -8,826 |
| Kentucky | 1,719 | 1,060 | -660 | 731 | 195 | -536 |
| Louisiana | 2,777 | 1,749 | -1,028 | 1,180 | 352 | -828 |
| Mississippi | 2,631 | 1,687 | -944 | 1,118 | 363 | -755 |
| North Carolina | 1,255 | 764 | -490 | 533 | 133 | -400 |
| South Carolina | 1,666 | 1,010 | -656 | 708 | 172 | -536 |
| Tennessee | <u>4,082</u> | 2,072 | <u>-2,010</u> | <u>1,735</u> | <u>18</u> | -1,716 |
| Total | 46,570 | 25,434 | -21,136 | 19,792 | 2,003 | -17,789 |

Source: Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service (July 2002), Trends in Telephone Service (May2002), FCC – Selected RBOC Local Telephone Data (December 2001 and 2001), National Regulatory Research Institute (July 2002), RBOC Company Reports and Merrill Lynch estimates.



■ SBC Communications

Given the aggressive pricing of UNEs in its Ameritech region, it is clear SBC faced considerable competitive pressure from UNE-P in 2001 – combined with significant revenue losses in Texas. Based on our estimates, UNE-P lowered SBC's revenue by \$328MM and EBITDA by \$284MM in 2001. UNE-P revenue and UNE-P losses represent roughly 0.5% of 2001 revenue and approx 1.0% of 2001 EBITDA. Our estimates seem reasonable given that in its 2001 10K, SBC noted that its access line revenue declined by nearly \$650MM in 2001 due to the economy and competitive pressure – management has suggested that more than half of this total is from UNE-P. Again, we believe UNE-P losses will accelerate going forward, primarily because AT&T and MCI are likely to be aggressive in California following a May 2002 PUC decision to significantly lower UNE-P rates. In addition, as we mentioned above, UNE-P penetration in California, as of year-end 2001 is currently negligible.

Table 17: SBC Communications
YoY Revenue and EBITDA Loss for Residential and SME From UNE-P

| | | Revenue | | | EBITDA | | | | |
|-----------------|--------------|---------|---------------|---------|---------|----------|--|--|--|
| \$ in Thousands | Retail | UNE-P | Lost | Retail | UNE-P | Lost | | | |
| Arkansas | 6,609 | 2,937 | -3,672 | 2,809 | -388 | -3,197 | | | |
| California | 16,866 | 9,706 | -7,161 | 7,168 | 1,220 | -5,948 | | | |
| Illinois | 121,503 | 52,465 | -69,038 | 51,639 | -8,666 | -60,305 | | | |
| Indiana | 2,697 | 1,386 | -1,311 | 1,146 | 29 | -1,117 | | | |
| Kansas | 15,128 | 8,209 | -6,919 | 6,430 | 598 | -5,832 | | | |
| Michigan | 197,192 | 68,908 | -128,284 | 83,807 | -30,304 | -114,111 | | | |
| Missouri | 5,686 | 3,332 | -2,354 | 2,416 | 471 | -1,945 | | | |
| Nevada | 3 | 3 | -1 | 1 | 1 | 0 | | | |
| Ohio | 19,418 | 8,752 | -10,666 | 8,253 | -1,017 | -9,270 | | | |
| Oklahoma | 5,442 | 3,387 | -2,055 | 2,313 | 649 | -1,663 | | | |
| Texas | 222,657 | 129,026 | -93,631 | 94,629 | 17,001 | -77,628 | | | |
| Wisconsin | <u>5,333</u> | 2,395 | <u>-2,938</u> | 2,266 | -289 | -2,555 | | | |
| Total | 618,533 | 290,505 | -328,029 | 262,877 | -20,695 | -283,572 | | | |

Source: Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service (July 2002), Trends in Telephone Service (May2002), FCC – Selected RBOC Local Telephone Data (December 2001 and 2001), National Regulatory Research Institute (July 2002), RBOC Company Reports and Merrill Lynch estimates.



■ Verizon Communications

Given that Verizon Communications is the furthest ahead with respect to securing Section 271 relief in all of its states and New York already has a high penetration level of UNE-P lines, we believe Verizon Communications' losses to UNE-P were somewhat mixed in 2001 and came in between those of BellSouth and SBC. We estimate that Verizon Communications lost only \$85MM of revenue and \$74MM of EBITDA due to the increase it saw in UNE-P lines combined with lower UNE-P rates in 2001. However, we believe that Verizon Communications is exposed in several states going forward including Maryland, Massachusetts, New Jersey, Pennsylvania and Virginia going forward.

Table 18: Verizon Communications
YOY Revenue and EBITDA Loss for Residential and SME From UNE-P

| _ | Revenue | | | EBITDA | | | |
|---------------|---------|--------|---------|--------|--------|---------|--|
| | Retail | UNE-P | Lost | Retail | UNE-P | Lost | |
| Connecticut | N/A | N/A | N/A | N/A | N/A | N/A | |
| D.C. | 0 | 0 | 0 | 0 | 0 | 0 | |
| Delaware | 0 | 0 | 0 | 0 | 0 | Ô | |
| Maine | N/A | N/A | N/A | N/A | N/A | N/A | |
| Maryland | 185 | 95 | -90 | 79 | 2 | -76 | |
| Massachusetts | 9,971 | 5,344 | -4,627 | 4,238 | 327 | -3,911 | |
| New Hampshire | 73 | 62 | -11 | 31 | 25 | -6 | |
| New Jersey | 678 | 308 | -370 | 288 | -33 | -321 | |
| New York | 137,991 | 59,610 | -78,381 | 58,646 | -9.817 | -68.463 | |
| Pennsylvania | 4,001 | 2.156 | -1.845 | 1.700 | 143 | -1,557 | |
| Rhode Island | 63 | . 34 | -29 | 27 | 2 | -24 | |
| Vermont | N/A | N/A | N/A | N/A | N/A | N/A | |
| Virginia | 0 | 0 | 0 | 0 | 0 | 0 | |
| West Virginia | 0 | Ō | Q | 0 | ñ | 0 | |
| Total | 152,962 | 67,609 | -85,353 | 65,009 | -9,350 | -74,358 | |

Source: Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service (July 2002), Trends in Telephone Service (May2002), FCC – Selected RBOC Local Telephone Data (December 2001 and 2001), National Regulatory Research Institute (July 2002), RBOC Company Reports and Merrill Lynch estimates.



Estimated Impact of UNE-P - 2002E to 2005E

Given that UNE-P is likely to have the largest impact in the residential space, we have confined our analysis to the residential side of the RBOCs business. We use the methodology previously described in this report to lay out a framework to estimate RBOC exposure to UNE-P over the next four years (2002E to 2005E). First, we estimate the line loss to be pretty dramatic over the next 18 months as AT&T and MCI take advantage of the recently lower UNE-P rates in several large states. In addition, we believe it just a matter of time before Sprint FON again begins to offer local service over UNE-P.

As noted before we assume that if the spread between retail and wholesale pricing was 30% or less there would not be enough margin to attract competitors to the state and there would be zero penetration in UNE-P lines. Based on our estimates, there are five states where UNE-P will gain no traction at all: Arizona, Nevada, New Hampshire, West Virginia and Wyoming. Secondly, we noted that if the spread between retail and wholesale were between 30% and 40%; we would see 10% penetration of UNE-P lines in those respective states. Spreads of 40% to 50% would encourage competition up to 20% of lines and finally spread greater than 50% would encourage competition up to 30% of the residential lines.

Using this methodology, we estimate that residential and SME UNE-P losses will grow by 86% in 2002 versus 2001, with SBC losing the largest number of lines of the four RBOCs. We believe line lose will peak in 2003 but will continue to grow until 2005 and represent more than 20% of 2001 RBOC residential access line totals.

Table 19: Estimated RBOC Lines Lost to Residential and SME UNE-P

| 2000 | 2001 | 2002E | 2003E | 2004E | 2005E |
|-----------|--|--|--|---|---|
| 111,801 | 216,677 | 881,965 | 1,990,778 | 3.099.590 | 3.326.438 |
| n/a | n/a | 351.454 | | , , | 1,757,268 |
| 701,478 | 2,167,954 | 4,351,064 | | .,, | 10.915.559 |
| 1,407,700 | 1,738,987 | | | .,,. | 5,810,402 |
| 2,220,979 | 4,123,618 | 8,244,562 | 14.433,457 | | 21.809.668 |
| | 111,801 n/a 701,478 1,407,700 | 111,801 216,677 n/a n/a 701,478 2,167,954 1,407,700 1,738,987 | 111,801 216,677 881,965 n/a n/a 351,454 701,478 2,167,954 4,351,064 1,407,700 1,738,987 2,660,079 | 111,801 216,677 881,965 1,990,778 n/a n/a 351,454 937,210 701,478 2,167,954 4,351,064 7,511,330 1,407,700 1,738,987 2,660,079 3,994,140 | 111,801 216,677 881,965 1,990,778 3,099,590 n/a n/a 351,454 937,210 1,522,966 701,478 2,167,954 4,351,064 7,511,330 10,207,427 1,407,700 1,738,987 2,660,079 3,994,140 5,328,200 |

Source: FCC – Selected RBOC Local Telephone Data (December 2001 and 2001), RBOC Company Reports and Merrill Lynch estimates.

How does this translate into lost revenue and EBITDA? In tables 20 and 21 we show our results on cumulative basis between 2001 and 2005. We believe that as a group the four RBOCs on run rate basis will have lost a total \$4.3B of revenue and \$3.7B of EBITDA by 2005 due to UNE-P. UNE-P losses represent 2% of combined RBOC 2005E revenue and 5% of 2005E EBITDA.

While these numbers are large they are "manageable" in the sense that while painful and unwelcome they do not overall (although may state by state) lead to a dire deterioration in financial performance. What this does mean however is UNE-P represents another non-trivial restraint on EPS growth.



| Table 20: YoY Incremental Lost Revenue Due to UNE-P Line Loss | | | | | | | | | |
|---|----------------|----------|------------|------------|----------|------------|--|--|--|
| \$ in Thousands | 2001 | 2002E | 2003E | 2004E | 2005E | Total | | | |
| BellSouth | -21,136 | -131,366 | -217,947 | -217,947 | -43,527 | -631,922 | | | |
| Qwest | 0 | -68,311 | -113,851 | -113,851 | -45,540 | -341,553 | | | |
| SBC | -328,029 | -483,268 | -719,535 | -593,472 | -155,021 | -2,279,324 | | | |
| Verizon Communications | <u>-85,353</u> | -238,178 | -287,787 | -287,787 | -104,595 | -1,003,700 | | | |
| Total | -434,518 | -921,122 | -1,339,120 | -1,213,057 | -348,683 | -4,256,499 | | | |

Source: Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service (July 2002), Trends in Telephone Service (May2002), FCC – Selected RBOC Local Telephone Data (December 2001 and 2001), National Regulatory Research Institute (July 2002), RBOC Company Reports and Merrill Lynch estimates.

That said a key issue, in our view, is that if the RBOC has to spend capex on a line lost due to UNE-P, which it does, the FCF impact can be potentially be large. Assuming the RBOCs continue to spend an equal amount of capex per line on a retail line and a wholesale line, the lost free cash flow will equal the lost EBITDA. Thus, we estimate that RBOC FCF will decline by the same amount as EBITDA due to UNE-P losses and thus adversely impact the RBOCs ability to increase dividends, buy back stock and in the case of Verizon Communications pay down debt.

| Table 21: YoY Incremental Lost EBITDA Due to UNE-P Line Loss | | | | | | | | | |
|--|----------|----------|-----------------|-----------------|----------------|------------|--|--|--|
| \$ in Thousands | 2001 | 2002E | 2003E | 2004E | 2005E | Total | | | |
| BellSouth | -17,789 | -110,760 | -183,604 | -183,604 | -36,656 | -532,413 | | | |
| Qwest | 0 | -57,600 | -96,001 | -96,001 | -38,400 | -288,002 | | | |
| SBC | -283,572 | -421,328 | -629,948 | -518,830 | -135,987 | -1,989,665 | | | |
| Verizon Communications | -74,358 | -210,075 | <u>-247,671</u> | <u>-247,671</u> | <u>-90,169</u> | -869,944 | | | |
| Total | -375,719 | -799,764 | -1,157,223 | -1,046,105 | -301,212 | -3,680,023 | | | |

Source: Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service (July 2002), Trends in Telephone Service (May2002), FCC – Selected RBOC Local Telephone Data (December 2001 and 2001), National Regulatory Research Institute (July 2002), RBOC Company Reports and Merrill Lynch estimates.



5. What Can the RBOCs Do to Fight UNE-P?

The picture that we paint in this report is somewhat bleak – although as we noted in the previous section the overall revenue loss to the RBOCs is manageable in our view ... even if it is a further hit to the investment case for their equity securities. In any event, it is clear that under the current wholesale price scheme the UNE-P issue is of particular importance to RBOC profitability over the next several years. The RBOCs are likely to continue to lobby the state regulators for higher UNE-P pricing while at the same time lobby the FCC for a fundamental change in several aspects of the UNE-P policy. Most importantly we believe the RBOCs will strongly argue the case for the FCC to make adjustments to the definition of the "necessary and impair" standard with respect to including switching as an element in certain geographic areas under the UNE pricing methodology. We would emphasize that the elimination of switching could mean the end of UNE-P.

Taking remedial action ...

There are several areas where we believe the RBOCs will be aggressive in an attempt to dampen the impact of UNE-P on overall profitability.

- 1) First, as we have described in a previous section of this report, the RBOCs will almost certainly continue to contest this issue in the courts. A recent D.C. Circuit Court was encouraging for the RBOCs. On May 24, 2002, the D.C. Circuit vacated the FCC's 1999 Line Sharing Order and UNE Remand Order, which gave a competitor offering data services access to the high frequency portion of the loop without having to lease the entire loop. The court cited competition from companies offering high-speed data service as the main reason for vacating the FCC's line-sharing order. Predictably, on July 10, 2002 the FCC asked the D.C. Circuit to rehear its decision vacating the FCC's order on DSL line sharing. Most recently, on September 6th, the D.C. circuit rejected the FCC's request for rehearing of the May 24th decision. Notably, the court stayed the effective date of the decision to January 2, 2003, at which time the FCC is expected to complete the triennial review of its unbundling rules.
- We also believe that the RBOCs will continue to file cost studies with the state regulators. The RBOCs filing the cost studies asking the state regulators to increase wholesale rates under the UNE-P pricing scheme. SBC, in particular, has been very aggressive in its Ameritech region. Early in September, SBC filed a cost study with the Illinois state regulators seeking to double wholesale rates. In addition, SBC has also asked the state regulators in Ohio in June and in Michigan in August also seeking to double wholesale rates. We believe this route is going to be particular challenging for the RBOCs given that the state regulators have been analyzing wholesale pricing for years. Telephony Magazine has recently quoted a Midwest PUC spokeswoman as saying "that her commission had looked at wholesale pricing several times over the last five years and that prices have been based on the carrier's cost studies, so that they haven't been created out of thin air. They provide the basis". In addition, if SBC were to be successful with its petition its could be a couple of years before a state regulatory body acted on SBC's requests for higher wholesale rates. We remain skeptical that this will prove a successful path.
- 3) Another regulatory avenue that could potentially limit the scope of UNE-P as wholesale mechanism is the FCC's upcoming Triennial Review. On December 12, 2001, the FCC determined that it would re-examine its policies on (UNEs). The Triennial UNE Review Notice of Proposed Rule Making was released on December 20, 2001. The comment cycle closed on July 17, 2002 and the report is expected by the end of the year. As has been widely reported in the telecommunications trade, press all three of the RBOCs are



- aggressively lobbying the FCC on the UNE-P issue in front of the release of the Triennial Review later this year.
- 4) On an operational front, we believe the RBOCs will more aggressively look to bundle their services in order to make subscribers more "sticky". Verizon Communications has announced the most ambitious bundling plan of all of the RBOCs thus far. In addition, we believe the RBOCs will initiate aggressive winback programs following universal Section 271 relief, which we believe, will be completed by mid 2003.

The action that would likely have the highest degree of success in stemming wholesale competition, but is the least likely to occur, in our view, would be an RBOC acquisition of AT&T. Over the next several years, we believe AT&T, given its relatively strong balance sheet (assuming a successful completion of the Comcast transaction), brand recognition and large customer base is likely to gain the largest benefit from the current UNE-P pricing scheme. (Although note that we still expect to see considerable pain absorbed by AT&T in its retail business via loss of consumer LD customers to the RBOCs even as it gains in the local space, plus, of course, continued wireless and internet substitution and the adverse revenue yield effect of subscribers migrating to optional calling plans.)

Finally, we would like to point out that when competitive access provider (CAP) competition began in the mid-80's, the ILECs contested that "bypass" by the CAPs and large businesses self provisioning connections to IXCs would put considerable pressure on access revenues. And, in turn, force the ILECs to raise exchange prices for smaller customers. In addition, predivestiture, AT&T had the same argument, that MCI's resale of its Telpak services (and other bulk discounts) would ruin the long distance business. Given neither one of the dire predictions proved true, we believe it is very likely that the state regulators and the FCC will look at the history and be skeptical of some of the ILECs arguments against UNE-P.



6. RBOC Investment Opinions

When we completed our review of the RBOCs' 2Q results with a detailed report on Verizon Communications, at that time (15th August) we suggested that we expected to see "stabilization" in all of these stocks after the dramatic sell off year to date. However, we noted that we felt valuations at the low end of historic ranges were here to stay and thus refrained from adopting a more conclusively upbeat view ... a position we continue to hold. Indeed, our analysis on UNE-P further reinforces our cautious view on the RBOCs. We continue to rate each of the three pure RBOCs Neutral.

Where are we with valuation now?

As we have noted in the past, that both BellSouth and SBC have solid balance sheets, generate cash, and are committed to a share buy backs. Both trade on a low double digit P/Es. (10.5x and 10.0x 2002E normalized EPS, respectively.) Verizon Communications is the most leveraged of the RBOCs (current net debt/EBITDA of 2.0x vs. 1.2x at BellSouth and 1.2x at SBC). Further of gross debt of \$61.6B at end June, 27.5% (\$17.0B) is due within 12 months. That said with a payout ratio in line with SBC and higher than BellSouth, Verizon Communications likewise stands on a modest P/E of 9.6x and offers a well above average yield, the best of the trio in fact.

Note that for Verizon Communications our 5 year CAGR projections for revenue, EBITDA and EPS are modest at 1.6%, 1.8% and 3.9% respectively, from a 2002 base. (The equivalent numbers for SBC are 1.6%, 1.7% and 4.5% respectively, for BellSouth 1.6%, 1.3% and 4.2% respectively.)

So ... how do we value these apparently "bond-like" companies? With investors having reduced faith in the E in P/E calculations generally across the market, we have recently assessed valuation by taking the dividend yield and adding on the "yield" resulting from a stock buyback. We estimate the latter by dividing the dollar value of the buyback by the number of shares outstanding, then dividing that by the current stock price. The sum of these two yield calculations results in a notional total yield (part recurring, part not of course), which we then compare to 30 yr. bond yields on similarly rated telecoms. Note this is somewhat like a free cash flow (FCF) yield but crucially we only pay attention to FCF that finds its way into the hands of shareholders rather than accounting/notional FCF that might not.

If both the BellSouth and the SBC buybacks are considered (\$2B over 18 months at BellSouth, approx. \$2B over one year at SBC), the total notional cash return yield on the equity of these securities is 6.7% and 7.1%, respectively, as seen in Table 22. Given its higher leverage and near term agenda of paying down debt we make no assumptions about buy backs at Verizon Communications. Verizon Communications' unadjusted dividend yield is 5.2%.

SBC's notional cash return yield exceeds that of the comparable yield on AArated corporate of approx. 6.4% (the 30-year treasury plus 170 basis points). We suggested in previous 2Q reports that equity investments in both SBC and also BellSouth should have limited downside current levels – i.e., even if SBC and BellSouth show only very limited growth going forward, the cash flow returned to shareholders is roughly in line with that available from its debt securities (which do not "grow" at all).

Verizon Communications, however, has equity with a total yield of 5.2%, lower than the comparable A-rated corporate of approx. 7.5% (the 30-year treasury plus 280 basis points). This has the great the advantage of being a recurring obligation that management "must" meet.



| Table 22: Comparative Yield Analysis | | | | | | | | | | |
|--------------------------------------|-------------------------|----------------|---------------|-------------|--|--|--|--|--|--|
| Company | Credit Rating (Moody's) | Dividend Yield | Stock Buyback | Total Yield | | | | | | |
| BellSouth* | Aa3 | 3.6% | 3.1% | 6.7% | | | | | | |
| SBC | Aa3 | 4.6% | 2.5% | 7.1% | | | | | | |
| AA 30 yr. Corp. Bond | | | | 6.4% | | | | | | |
| Verizon Communications | A1 | 5.2% | NA | 5.2% | | | | | | |
| A 30 yr. Corp. Bond | | | | 7.5% | | | | | | |

Source: Memill Lynch estimates
BellSouth's \$2B stock buyback assumes that \$1.3B of common stock is bought back over a 12 month period, with the remainder repurchased in the following six months.
Bond yields are based on current spread-to-treasury levels.



Appendix I

■ Residential UNE-P Rates



BellSouth

■ Residential UNE-P Pricing

Table 23: BellSouth Residential UNE-P Rates as of July 1, 2002

| | | Loop | Port | | D | Average esidential | |
|----------------|---------|---------------|------|-----------|-------|-----------------------|------------|
| | Density | Loop Rate | | Switching | Total | esiueriuai. Rate | |
| State | _ | er month) (pe | | _ | | | Percentage |
| Alabama | 1 | 15.24 | 2.07 | 1.70 | 19.01 | 25.31 | 75.1% |
| | 2 | 24.75 | | | 28.52 | | 112.7% |
| | 3 | 44.85 | | | 48.62 | | 192.1% |
| | Avg | 19.04 | | | | | |
| Florida | 1 | 12.79 | 1.40 | 0.77 | 14.96 | 19.43 | 77.0% |
| | 2 | 17.27 | | | 19.44 | | 100.1% |
| | 3 | 33.36 | | | 35.53 | | 182.9% |
| | Avg | 15.81 | | | | | |
| Georgia | 1 | 14.21 | 1.85 | 1.63 | 17.69 | 27.64 | 64.0% |
| | 2 | 16.41 | | | 19.89 | | 72.0% |
| | 3 | 26.08 | | | 29.56 | | 106.9% |
| | Avg | 16.51 | | | | | |
| Kentucky | 1 | 10.56 | 1.49 | 1.20 | 13.25 | 28.18 | 47.0% |
| | 2 | 15.34 | | | 18.03 | | 64.0% |
| | 3 | 31.11 | | | 33.80 | | 119.9% |
| | Avg | 18.41 | | | | | |
| Louisiana | 1 | 14.05 | 2.55 | 2.10 | 18.70 | 22.21 | 84.2% |
| | 2 | 24.14 | | | 28.79 | | 129.6% |
| | 3 | 49.30 | | | 53.95 | | 242.9% |
| | Avg | 17.31 | | | | | |
| Mississippi | 1 | 15.58 | 2.11 | 2.38 | 20.07 | 27.51 | 73.0% |
| | 2 | 20.65 | | | 25.14 | | 91.4% |
| | 3 | 29.51 | | | 34.00 | | 123.6% |
| | 4 | 38.94 | | | 43.43 | | 157.9% |
| | Avg | 21.26 | | | | | |
| North Carolina | 1 | 12.11 | 2.19 | 1.70 | 16.00 | 19.81 | 80.8% |
| | 2 | 21.24 | | | 25.13 | | 126.9% |
| | 3 | 33.65 | | | 37.54 | | 189.5% |
| | Avg | 15.88 | | | | | |
| South Carolina | 1 | 14.94 | 1.65 | 1.05 | 17.64 | 21.89 | 80.6% |
| | 2 | 21.39 | | | 24.09 | 20.99 | 114.8% |
| | 3 | 26.72 | | | 29.42 | 19.64 | 149.8% |
| | Avg | 17.60 | | | | | |
| Tennessee | 1 | 13.19 | 1.89 | 0.80 | 15.88 | 22.04 | 72.1% |
| | 2 | 17.23 | | | 19.92 | | 90.4% |
| | 3 | 22.53 | | | 25.22 | | 114.4% |
| | Avg | 14.92 | | | | | |



Table 24: BellSouth Residential UNE-P Rates as of Spring 2001

| | | | | | Average | | | |
|----------------|---------|---------------|------|-----------|---------|-------------|------------|--|
| | | Loop | Port | | | Residential | | |
| C1-1- | Density | Rate | | Switching | Total | Rate | | |
| State | | er month) (pe | | | Cost (p | er month) | Percentage | |
| Alabama | 1 | 15.24 | 2.50 | 1.70 | 19.44 | 23.89 | 81.4% | |
| | 2 | 24.75 | | | 28.95 | | 121.2% | |
| | 3 | 44.85 | | | 49.05 | | 205.3% | |
| | Avg | 19.04 | | | | | | |
| Florida | 1 | 13.76 | 1.62 | 0.88 | 16.26 | 18.07 | 90.0% | |
| | 2 | 20.13 | | | 22.63 | | 125.2% | |
| | 3 | 44.40 | | | 46.90 | | 259.5% | |
| Georgia | 1 | 14.21 | 1.85 | 1.63 | 17.69 | 26.14 | 67.7% | |
| | 2 | 16.41 | | | 19.89 | | 76.1% | |
| | 3 | 26.08 | | | 29.56 | | 113.1% | |
| | Avg | 16.51 | | | | | | |
| Kentucky | 1 | 13.54 | 2.61 | 2.56 | 18.71 | 25.85 | 72.4% | |
| , | 2 | 19.73 | | | 24.90 | 20.00 | 96.3% | |
| | 3 | 28.27 | | | 33.44 | | 129.4% | |
| | Avg | 20.00 | | | | | 120(170 | |
| Louisiana | 1 | 19.35 | 2.20 | 2.10 | 23.65 | 20.79 | 113.8% | |
| | 2 | 22.84 | | | 27.14 | | 130.5% | |
| Mississippi | 1 | 16.71 | 2.11 | 1.28 | 20.10 | 26.48 | 75.9% | |
| | 2 | 21.45 | | | 24.84 | | 93.8% | |
| | 3 | 29.75 | | | 33.14 | | 125.2% | |
| | 4 | 38.59 | | | 41.98 | | 158.5% | |
| North Carolina | 1 | 16.71 | 2.19 | 1.70 | 20.60 | 18.44 | 111.7% | |
| South Carolina | 1 | 18.48 | 2.35 | 1.93 | 22.76 | 20.12 | 113.1% | |
| | 2 | 27.87 | | | 32.15 | | 159.8% | |
| | 3 | 36.91 | | | 41.19 | | 204.7% | |
| Tennessee | 1 | 13.19 | 1.89 | 0.80 | 15.88 | 21.55 | 73.7% | |
| | 2 | 17.23 | | | 19.92 | | 92.4% | |
| | 3 | 22.53 | | | 25.22 | | 117.0% | |
| | Avg | 14.92 | | | | | | |



Qwest Communications

■ Residential UNE-P Pricing

Table 25: Qwest Communications Residential UNE-P Rates as of July 1, 2002

| | | Loop | Port | | | Average Residential | |
|-----------|---------|---------------|-------------|------------|-------|------------------------|------------|
| | Density | Rate | Rate | Switching | Total | Rate | 1 |
| State | | er month) (pe | er month) (| per month) | Cost | (per month) | Percentage |
| Arizona | 1 | 18.96 | 1.61 | 2.80 | 23.37 | 21.83 | 107.1% |
| | 2 | 34.94 | | | 39.35 | | 180.3% |
| | 3 | 56.53 | | | 60.94 | | 279.2% |
| | Avg | 21.98 | | | | | |
| Colorado | 1 | 5.91 | 1.86 | 2.00 | 9.77 | 24.58 | 39.7% |
| | 2 | 12.31 | | | 16.17 | | 65.8% |
| | 3 | 32.79 | | | 36.65 | | 149.1% |
| | Avg | 20.65 | | | | | |
| ldaho | 1 | 15.81 | 1.34 | 1.73 | 18.88 | 24.02 | 78.6% |
| | 2 | 24.01 | | | 27.08 | | 112.7% |
| | 3 | 40.92 | | | 43.99 | | 183.1% |
| | Avg | 20.42 | | | | | |
| lowa | 1 | 13.11 | 1.15 | 0.69 | 14.95 | 17.93 | 83.4% |
| | 2 | 15.64 | | | 17.48 | 16.96 | 103.1% |
| | 3 | 27.27 | | | 29.11 | 15.99 | 182.1% |
| | Avg | 16.47 | | | | | |
| Minnesota | 1 | 8.81 | 1.08 | 1.81 | 11.70 | 22.14 | 52.8% |
| | 2 | 12.33 | | | 15.22 | | 68.7% |
| | 3 | 14.48 | | | 17.37 | | 78.5% |
| | 4 | 21.91 | | | 24.80 | | 112.0% |
| | Avg | 17.87 | | | | | |
| Montana | 1 | 23.10 | 1.58 | 0.69 | 25.37 | 24.86 | 102.1% |
| | 2 | 23.90 | | | 26.17 | | 105.3% |
| | 3 | 27.13 | | | 29.40 | | 118.3% |
| | 4 | 29.29 | | | 31.56 | | 127.0% |
| | Avg | 23.72 | | | | | |
| Nebraska | 1 | 15.14 | 2.47 | 0.69 | 18.30 | 28.11 | 65.1% |
| | 2 | 35.05 | | | 38.21 | | 135.9% |
| | 3 | 77.92 | | | 81.08 | | 288.4% |
| | Avg | 17.51 | | | | | |



Table 26: Qwest Communications Residential UNE-P Rates as of July 1, 2002

| | | Loop | Port | | | Average Residential | |
|--------------|---------|--------------|------|-----------|-------|------------------------|---------|
| | Density | Rate | Rate | Switching | Total | | |
| State | | per month) (| | | | (per month) | |
| New Mexico | 1 | 17.75 | 1.38 | 1.11 | 20.24 | 19.21 | 105.4% |
| TTOWN THOMAS | 2 | 20.30 | 1.50 | | 22.79 | 10.21 | 118.6% |
| | 3 | 26.23 | | | 28.72 | | 149.5% |
| | Avg | 20.50 | | | 20.72 | | 143.370 |
| North Dakota | 1 | 14.78 | 1.27 | 0.69 | 16.74 | 24.25 | 69.0% |
| | 2 | 24.92 | | | 26.88 | | 110.8% |
| | 3 | 56.44 | | | 58.40 | | 240.8% |
| | Avg | 17.79 | | | | | |
| Oregon | 1 | 13.95 | 1.26 | 1.33 | 16.54 | 23.74 | 69.7% |
| | 2 | 25.20 | | | 27.79 | | 117.1% |
| | 3 | 56.21 | | | 58.80 | | 247.7% |
| | Avg | 15.00 | | | | | |
| South Dakota | 1 | 17.01 | 1.84 | 3.47 | 22.32 | 24.81 | 90.0% |
| | 2 | 18.54 | | | 23.85 | | 96.1% |
| | 3 | 24.37 | | | 29.68 | | 119.6% |
| | Avg | 21.09 | | | | | |
| Utah | 1 | 14.77 | 0.89 | 2.30 | 17.96 | 21.02 | 85.4% |
| | 2 | 17.76 | 0.90 | 2.66 | 21.32 | | 101.4% |
| | 3 | 20.29 | 1.02 | 2.90 | 24.21 | | 115.2% |
| | Avg | 16.13 | | | | | |
| Washington | 1 | 6.41 | 1.34 | 1.20 | 8.95 | 20.62 | 43.4% |
| | 2 | 11.35 | | | 13.89 | | 67.4% |
| | 3 | 12.76 | | | 15.30 | | 74.2% |
| | 4 | 14.31 | | | 16.85 | | 81.7% |
| | 5 | 19.06 | | | 21.60 | | 104.8% |
| | Avg | 14.56 | | | | | |
| Wyoming | BRA | 19.91 | 2.64 | 3.69 | 26.24 | 29.66 | 88.5% |
| | 1 | 26.94 | | | 33.27 | | 112.2% |
| | 2 | 30.13 | | | 36.46 | | 122.9% |
| | 3 | 40.98 | | | 47.31 | | 159.5% |
| | Avg | 23.39 | | | | | |



Table 27: Qwest Communications Residential UNE-P Rates as of Spring 2001

| | | Loop | Port | | R | Average tesidential | |
|-----------|---------|----------------|--------------|-----------|----------|------------------------|------------|
| | Density | Rate | Rate | Switching | Total | Rate | |
| State | Zone (| per month) (pe | r month) (pe | er month) | Cost (pe | er month) | Percentage |
| Arizona | ī | 21.98 | 1.61 | 2.80 | 26.39 | 20.64 | 127.9% |
| Colorado | BRA | 19.65 | 1.15 | 2.83 | 23.63 | 22.62 | 104.5% |
| | 1 | 26.65 | | | 30.63 | | 135.4% |
| | 2 | 38.65 | | | 42.63 | | 188.5% |
| | 3 | 84.65 | | | 88.63 | | 391.8% |
| Idaho | 1 | 25.52 | 1.34 | 2.90 | 29.76 | 16.21 | 183.6% |
| lowa | 1 | 20.15 | 1.15 | 2.13 | 23.43 | 15.43 | 151.8% |
| Minnesota | 1 | 8.81 | 1.08 | 1.81 | 11.70 | 22.67 | 51.6% |
| | 2 | 12.33 | | | 15.22 | | 67.1% |
| | 3 | 14.48 | | | 17.37 | | 76.6% |
| | 4 | 21.91 | | | 24.80 | | 109.4% |
| | Avg | 17.87 | | | | | |
| Montana | 1 | 26.69 | 1.45 | 2.90 | 31.04 | 20.91 | 148.4% |
| | 2 | 27.62 | | | 31.97 | | 152.9% |
| | 3 | 31.36 | | | 35.71 | | 170.8% |
| | 4 | 33.95 | | | 38.30 | | 183.2% |
| | Avg | 27.41 | | | | | |
| Nebraska | 1 | 13.56 | 1.37 | 4.13 | 19.06 | 24.49 | 77.8% |
| | 2 | 27.12 | | | 32.62 | | 133.2% |
| | 3 | 54.24 | | | 59.74 | | 243.9% |
| | Avg | 14.32 | | | | | |



Table 28: Qwest Communications Residential UNE-P Rates as of Spring 2001

| | | | | | Average | | | |
|--------------|----------|---------------|-------------|-----------|---------|------------|------------|--|
| | | Loop | Port | | R | esidential | | |
| | Density | Rate | Rate | Switching | Total | Rate | | |
| State | Zone (po | er month) (pe | r month) (p | er month) | Cost (p | er month) | Percentage | |
| New Mexico | 1 | 17.75 | 1.38 | 1.11 | 20.24 | 22.21 | 91.1% | |
| | 2 | 20.30 | | | 22.79 | | 102.6% | |
| | 3 | 26.23 | | | 28.72 | | 129.3% | |
| North Dakota | 1 | 16.41 | 1.27 | 2.00 | 19.68 | 22.41 | 87.8% | |
| | 2 | 27.66 | | | 30.93 | | 138.0% | |
| | 3 | 62.66 | | | 65.93 | | 294.2% | |
| Oregon | 1 | 13.95 | 1.14 | 1.40 | 16.49 | 22.41 | 73.6% | |
| | 2 | 25.20 | | | 27.74 | | 123.8% | |
| | 3 | 56.21 | | | 58.75 | | 262.2% | |
| | Avg | 15.00 | | | | | | |
| South Dakota | 1 | 7.01 | 1.84 | 3.47 | 12.32 | 19.77 | 62.3% | |
| | 2 | 18.54 | | | 23.85 | | 120.6% | |
| | 3 | 24.37 | | | 29.68 | | 150.1% | |
| Utah | 1 | 14.41 | 0.89 | 2.30 | 17.60 | 18.95 | 92.9% | |
| | 2 | 17.47 | 0.90 | 2.66 | 21.03 | | 111.0% | |
| | 3 | 24.14 | 1.02 | 2.90 | 28.06 | | 148.1% | |
| | Avg | 20.00 | | | | | | |
| Washington | 1 | 11.33 | 1.04 | 1.80 | 14.17 | 19.38 | 73.1% | |
| Wyoming | BRA | 19.05 | 1.53 | 3.75 | 24.33 | 27.82 | 87.5% | |
| | 1 | 31.83 | | | 37.11 | | 133.4% | |
| | 2 | 40.11 | | | 45.39 | | 163.2% | |
| | 3 | 58.43 | | | 63.71 | | 229.0% | |



SBC Communications

■ Residential UNE-P Pricing

Table 29: SBC Communications Residential UNE-P Rates as of July 1, 2002

| | | - | | | _ | Average | |
|-------------|---------|-------|--------------|---------------------------------------|-------|-------------|----------------|
| | Di4 | Loop | Port | | | Residential | |
| State | Density | Rate | Rate | Switching | Total | Rate | |
| Arkansas | | | per month) (| · · · · · · · · · · · · · · · · · · · | | | Percentage |
| Arkansas | 3 | 11.86 | 1.61 | 1.31 | 14.78 | 24.57 | 60.2% |
| | 2 1 | 13.64 | | 1.69 | 16.94 | | 68.9% |
| | • | 23.34 | | 2.53 | 27.48 | | 111.8% |
| | Avg | 13.09 | | 1.84 | | | |
| California | 1 | 8.83 | 0.88 | 0.77 | 10.48 | 17.03 | 61.5% |
| | 2 | 11.27 | | | 12.92 | | 75.9% |
| | 3 | 19.63 | | | 21.28 | | 125.0% |
| | Avg | 9.93 | | | | | |
| Connecticut | 1A | 8.95 | 3.31 | 7.15 | 19.41 | 21.32 | 91.0% |
| | В | 12.03 | | | 22.49 | | 105.5% |
| | С | 13.28 | | | 23.74 | | 111.4% |
| | D | 19.69 | | | 30.15 | | 141.4% |
| | Avg | 12.49 | | | | | |
| Illinois | 1A | 2.59 | 5.01 | n/a | 7.60 | 21.67 | 35.1% |
| | 1B | 7.07 | Port rate | | 12.08 | _,,,,, | 55.7% |
| | 1C | 11.40 | includes | | 16.41 | | 75.7% |
| | 2C | 11.40 | unlimited | | 16.41 | | 75.7% |
| | Avg | 9.81 | switching | | | | 75.770 |
| Indiana | 3 | 8.03 | 5.34 | 3.44 | 16.81 | 20.39 | 82.4% |
| | 2 | 8.15 | | • | 16.93 | 20.00 | 83.0% |
| | 1 | 8.99 | | | 17.77 | | 87.2% |
| | Avg | 8.20 | | | ***** | | 07.270 |
| Kansas | 3 | 11.86 | 1.61 | 1.31 | 14.78 | 19.58 | 75.5% |
| | 2 | 13.64 | | 1.69 | 16.94 | 75.00 | 86.5% |
| | 1 | 23.34 | | 2.53 | 27.48 | | 140.3% |
| | Avg | 14.04 | | 2.00 | 27.40 | | 140.376 |
| Michigan | Α | 8.47 | 2.53 | 1,19 | 12.19 | 27.04 | 45.1% |
| | В | 8.73 | 2.00 | 1.13 | 12.19 | 27.04 | 45.1% |
| | C | 12.54 | | | 16.26 | | 46.0% 60.1% |
| | Avg | 10.15 | | | 10.20 | | OU. 176 |
| | - | | | | | | |



Table 30: SBC Communications Residential UNE-P Rates as of July 1, 2002

| | | Loop | Port | | - | Average Residential | |
|-----------|---------|---------------|------|-----------|---------|------------------------|-----------------|
| C4-4- | Density | Rate | | Switching | Total | Rate | |
| State | | er month) (pe | | | Cost (p | er month) | Percentage |
| Missouri | 1 | 12.71 | 1.74 | 1.62 | 16.07 | 20.61 | 78.0% |
| | 2 | 20.71 | 1.97 | 1.95 | 24.63 | | 119.5% |
| | 3 | 33.29 | 2.47 | 2.81 | 38.57 | | 187. 1 % |
| | 4 | 18.23 | 2.25 | 2.39 | 22.87 | | 111.0% |
| | Avg | 15.19 | | | | | |
| Nevada | 1 | 11.75 | 1.63 | 1.61 | 14.99 | 16.55 | 90.6% |
| | 2 | 22.66 | | | 25.90 | | 156.5% |
| | 3 | 66.31 | | | 69.55 | | 420.2% |
| | Avg | 19.83 | | | | | |
| Ohio | В | 5.93 | 4.63 | 3.23 | 13.79 | 20.34 | 67.8% |
| | С | 7.97 | | | 15.83 | | 77.8% |
| | D | 9.52 | | | 17.38 | | 85.4% |
| | Avg | 7.01 | | | | | |
| Oklahoma | 3 | 12.14 | 2.18 | 2.27 | 16.59 | 19.40 | 85.5% |
| | 2 | 13.65 | 2.21 | 2.52 | 18.38 | | 94.7% |
| | 1 | 26.25 | 2.58 | 3.80 | 32.63 | | 168.2% |
| | Avg | 14.84 | 2.25 | | | | |
| Texas | 3 | 12.14 | 1.58 | 2.12 | 15.84 | 20.43 | 77.5% |
| | 2 | 13.65 | 2.47 | | 18.24 | 20.10 | 89.3% |
| | 1 | 18.98 | 4.21 | | 25.31 | | 123.9% |
| | Avg | 14.15 | 2.90 | | | | . 20.070 |
| Wisconsin | 1 | 10.90 | 3.71 | 3.45 | 18.06 | 27.57 | 65.5% |



Table 31: SBC Communications
Residential UNE-P Rates as of Spring 2001

| | | Loop | Port | | ı | Average Residential | |
|-------------|---------|-------------|-------------|-------------|---------|------------------------|------------|
| | Density | | | | Total | Rate | |
| State | | (per month) | (per month) | (per month) | Cost (p | er month) | Percentage |
| Arkansas | 3 | 18.75 | 2.75 | 4.59 | 26.09 | 23.44 | 111.3% |
| | 2 | 31.60 | | 6.14 | 40.49 | | 172.7% |
| | 1 | 71.05 | | 2.35 | 76.15 | | 324.9% |
| California | 1 | 10.03 | 2.88 | 1.51 | 14,42 | 18.73 | 77.0% |
| | 2 | 13.51 | | | 17.90 | | 95.6% |
| | 3 | 25.53 | | | 29.92 | | 159.7% |
| Connecticut | 1A | 8.95 | 3.31 | 7.15 | 19.41 | 19.86 | 97.7% |
| | В | 12.03 | | | 22.49 | | 113.2% |
| | С | 13.28 | | | 23.74 | | 119.5% |
| | D | 19.69 | | | 30.15 | | 151.8% |
| | Avg | 12.49 | | | | | |
| Illinois | 1A | 2.59 | 5.01 | n/a | 7.60 | 10.20 | 74.5% |
| | 1B | 7.07 | Port rate | | 12.08 | 16.22 | 74.5% |
| | 1C | 11.40 | includes | | 16.41 | 16.80 | 97.7% |
| | 2C | 11.40 | unlimited | | 16.41 | 16.80 | 97.7% |
| | Avg | 9.81 | switching | | | | |
| Indiana | 3 | 8.03 | 5.34 | 3.44 | 16.81 | 20.04 | 83.9% |
| | 2 | 8.15 | | | 16.93 | | 84.5% |
| | 1 | 8.99 | | | 17.77 | | 88.7% |
| | Avg | 8.20 | | | | | |
| Kansas | 3 | 11.86 | 1.61 | 1.31 | 14.78 | 18.77 | 78.7% |
| | 2 | 13.64 | | 1.69 | 16.94 | | 90.3% |
| | 1 | 23.34 | | 2.53 | 27.48 | | 146.4% |
| | Avg | 14.04 | | | | | |
| Michigan | Α | 8.47 | 2.53 | 1.19 | 12.19 | 20.98 | 58.1% |
| | В | 8.73 | | | 12.45 | · · · · | 59.3% |
| | С | 12.54 | | | 16.26 | | 77.5% |
| | Avg | 10.15 | | | | | |



Table 32: SBC Communications
Residential UNE-P Rates as of Spring 2001

| | | • | | | _ | Average | |
|-----------|---------|---------------|--------------|-------------------|-------|------------|------------|
| | Danie. | Loop | Port | 0 5 1 . | | esidential | |
| | Density | Rate | | Switching | Total | Rate | _ |
| State | | er month) (pe | | | | | Percentage |
| Missouri | 1 | 12.71 | 1.74 | 1. 9 9 | 16.44 | 19.40 | 84.7% |
| | 2 | 20.71 | 1.97 | 2.39 | 25.07 | | 129.2% |
| | 3 | 33.29 | 2.47 | 3.44 | 39.20 | | 202.1% |
| | 4 | 18.23 | 2.25 | 2.93 | 23.41 | | 120.7% |
| Nevada | 1 | 11.75 | 1.63 | 1.61 | 14.99 | 15.47 | 96.9% |
| | 2 | 22.66 | | | 25.90 | | 167.4% |
| | 3 | 66.31 | | | 69.55 | | 449.6% |
| | Avg | 19.83 | | | | | |
| Ohio | В | 5.93 | 4.63 | 3.23 | 13.79 | 19.94 | 69.2% |
| | С | 7.97 | | | 15.83 | | 79.4% |
| | D | 9.52 | | | 17.38 | | 87.2% |
| Oklahoma | 3 | 12.14 | 2.18 | 2.27 | 16.59 | 19.06 | 87.0% |
| | 2 | 13.65 | 2.21 | 2.52 | 18.38 | | 96.4% |
| | 1 | 26.25 | 2.58 | 3.80 | 32.63 | | 171.2% |
| | Avg | 14.84 | 2.25 | | | | |
| Texas | 3 | 12.14 | 1.94 | 2.12 | 16.20 | 19.53 | 82.9% |
| | 2 | 13.65 | 2.15 | | 17.92 | | 91.8% |
| | 1 | 18.98 | 3.25 | | 24.35 | | 124.7% |
| | Avg | 14.15 | 2.90 | | | | |
| Wisconsin | 1 | 10.90 | 3 .71 | 3.45 | 18.06 | 11.58 | 156.0% |



Verizon Communications

■ Residential UNE-P Pricing

Table 33: Verizon Communications Residential UNE-P Rates as of July 1, 2002

| | | Loop | Port | | | Average Residential | |
|---------------|---------|---------------|------|-----------|-------|------------------------|------------|
| | Density | Rate | Rate | Switching | Total | esioentiai Rate | |
| State | - | er month) (pe | | • | | | Percentage |
| D.C. | 1 | 10.81 | 1.55 | 3.00 | 15.36 | 20.79 | 73.9% |
| Delaware | 1 | 10.07 | 2.23 | 2.78 | 15.08 | 17.53 | 86.0% |
| | 2 | 13.13 | | | 18.14 | 17.53 | 103.5% |
| | 3 | 16.67 | | | 21.68 | 18.19 | 119.2% |
| | Avg | 12.05 | | | | | |
| Hawaii | Oahu | 10.44 | 2.69 | 7.61 | 20.74 | 25.83 | 80.3% |
| | Maui | 17.23 | | | 27.53 | | 106.6% |
| | Hawaii | 21.91 | | | 32.21 | | 124.7% |
| Maine | 1 | 11.44 | 0.94 | 1.68 | 14.06 | 25.57 | 55.0% |
| | 2 | 13.47 | | | 16.09 | | 62.9% |
| | 3 | 18.75 | | | 21.37 | | 83.6% |
| | Avg | 16.19 | | | | | |
| Maryland | A1 | 12.11 | 1.90 | 3.80 | 17.81 | 26.57 | 67.0% |
| | A2 | 12.85 | | | 18.55 | | 69.8% |
| | B1 | 25.96 | | | 31.66 | | 119.2% |
| | B2 | 18.40 | | | 24.10 | | 90.7% |
| | Avg | 14.50 | | | | | |
| Massachusetts | 1 | 7.54 | 2.00 | 3.26 | 12.80 | 25.19 | 50.8% |
| | 2 | 14.11 | | 3.30 | 19.41 | | 77.1% |
| | 3 | 16.12 | | 3.30 | 21.42 | | 85.0% |
| | 4 | 20.04 | | 3.30 | 25.34 | | 100.6% |
| | Avg | 14.98 | | | | | |
| New Hampshire | 1 | 14.01 | 2.51 | 7.92 | 24.44 | 22.30 | 109.6% |
| | 2 | 15.87 | 2.20 | | 25.99 | 21.02 | 123.6% |
| | 3 | 24.09 | 2.21 | | 34.22 | 18.71 | 182.9% |
| | Avg | 17.53 | 2.22 | | | | |



Table 34: Verizon Communications Residential UNE-P Rates as of July 1, 2002

| | | Loop | Port | | | Average Residential | |
|---------------------|-----------------|---------------|------|------------|-------|------------------------|-------------|
| | Density | Rate | Rate | Switching | Total | Rate | |
| State | Zone (p | er month) (po | | per month) | | | Percentage |
| New Jersey | 1 | 8.12 | 0.73 | 2.64 | 11.49 | 15.71 | 73.1% |
| | 2 | 9.59 | | | 12.96 | 10 | 82.5% |
| | 3 | 10.92 | | | 14.29 | | 91.0% |
| | Avg | 9.52 | | | | | 01,072 |
| New York | 1 | 7.70 | 2.57 | 1.13 | 11.40 | 26.10 | 43.7% |
| | 2 | 11.31 | | | 15.01 | | 57.5% |
| | 3 | 15.51 | | | 19.21 | | 73.6% |
| | Avg | 11,49 | | | | | |
| Pennsylvania | 1 | 10.25 | 2.67 | 1.71 | 14.63 | 21.10 | 69.3% |
| | 2 | 11.00 | | | 15.38 | | 72.9% |
| | 3 | 14.00 | | | 18.38 | | 87.1% |
| | 4 | 16.75 | | | 21.13 | | 100.1% |
| | Avg | 13.81 | | | | | |
| Rhode Island | 1 | 11.19 | 1.86 | 1.28 | 14.33 | 25.71 | 55.7% |
| | 2 | 15.44 | | | 18.58 | | 72.3% |
| | 3 | 19.13 | | | 22.27 | | 86.6% |
| | Avg | 13.93 | | | | | |
| Vermont | 1 | 7.72 | 1.03 | 4.00 | 12.75 | 25.98 | 49.1% |
| | 2 | 8.35 | | | 13.38 | | 51.5% |
| | 3 | 21.63 | | | 26.66 | | 102.6% |
| | Avg | 14.41 | | | | | |
| Virginia | 1 | 10.74 | 1.30 | 3.10 | 15.14 | 30.56 | 49.5% |
| | 2 | 16.45 | | | 20.85 | | 68.2% |
| | 3 | 29.40 | | | 33.80 | | 110.6% |
| | Avg | 13.60 | | | | | |
| West Virginia | 1 | 14.99 | 1.60 | 7.24 | 23.83 | 28.13 | 84.7% |
| | 2 | 22.04 | | | 30.88 | • • • | 109.8% |
| | 3 | 43.44 | | | 52.28 | | 185.9% |
| | Avg | 24.58 | | | | | |
| Source: National Re | anulatory Docor | rch Inctitute | | | | | |



Table 35: Verizon Communications Residential UNE-P Rates as of Spring 2001

| | | Loop | Port | | R | Average esidential | |
|---------------|------------|---------------|--------------|-----------|----------|-----------------------|------------|
| | Density | Rate | | Switching | Total | Rate | |
| State | Zone (p | er month) (pe | r month) (pe | r month) | Cost (po | er month) | Percentage |
| D.C. | 1 | 10.81 | 1.55 | 3.00 | 15.36 | 21.32 | 72.0% |
| Delaware | 1 | 10.07 | 2.23 | 2.78 | 15.08 | 16.34 | 92.3% |
| | 2 | 13.13 | | | 18.14 | | 111.0% |
| | 3 | 16.67 | | | 21.68 | | 132.7% |
| | Avg | 12.05 | | | | | |
| Hawaii | Oahu | 10.44 | 2.69 | 7.61 | 20.74 | 23.62 | 87.8% |
| | Maui | 17.23 | | | 27.53 | | 116.6% |
| | Hawaii | 21.91 | | | 32.21 | | 136.4% |
| Kentucky | 1 | 17.44 | 4.02 | 3.42 | 24.88 | 23.78 | 104.6% |
| | 2 | 22.23 | | | 29.67 | | 124.8% |
| | 3 | 25.84 | | | 33.28 | | 139.9% |
| | Avg | 19.65 | | | | | |
| Maine | 1 | 12.67 | 2.24 | 2.89 | 17.80 | 20.92 | 85.1% |
| | 2 | 15.59 | 2.07 | 4.90 | 22.56 | | 107.8% |
| | 3 | 23.00 | 1.82 | 8.66 | 33.48 | | 160.0% |
| | Avg | 17.53 | | | | | |
| Maryland | A 1 | 12.11 | 1.90 | 3.80 | 17.81 | 25.89 | 68.8% |
| | A2 | 12.85 | | | 18.55 | | 71.6% |
| | B1 | 25.96 | | | 31.66 | | 122.3% |
| | B2 | 18.40 | | | 24.10 | | 93.1% |
| | Avg | 14.50 | | | | | |
| Massachusetts | 1 | 7.54 | 2.00 | 3.26 | 12.80 | 24.29 | 52.7% |
| | 2 | 14.11 | | 3.30 | 19.41 | | 79.9% |
| | 3 | 16.12 | | 3.30 | 21.42 | | 88.2% |
| | 4 | 20.04 | | 3.30 | 25.34 | | 104.3% |
| | Avg | 14.98 | | | | | |
| New Hampshire | 1 | 14.01 | 2.51 | 7.92 | 24.44 | 20.45 | 119.5% |
| | 2 | 15.87 | 2.20 | | 25.99 | | 127.1% |
| | 3 | 24.09 | 2.21 | | 34.22 | | 167.3% |
| | Avg | 17.53 | 2.22 | | | | |



Table 36: Verizon Communications Residential UNE-P Rates as of Spring 2001

| | | Loop | Port | | | Average Residential | ! ! |
|---------------|---------|---------------|--------------|-----------|---------|------------------------|------------|
| | Density | Rate | Rate | Switching | Total | Rate | |
| State | Zone (p | er month) (pa | er month) (p | er month) | Cost (p | | Percentage |
| New Jersey | 1 | 11.95 | 1.90 | 4.31 | 18.16 | 14.27 | 127.3% |
| | 2 | 16.02 | | | 22.23 | | 155.8% |
| | 3 | 20.98 | | | 27.19 | | 190.5% |
| | Avg | 16.17 | | | | | 1-11-270 |
| New York | 1 | 11.83 | 2.50 | 2.75 | 17.08 | 26.08 | 65.5% |
| | 2 | 12.49 | | | 17.74 | | 68.0% |
| | 3 | 19.24 | | | 24.49 | | 93.9% |
| | Avg | 14.81 | | | | | 00.070 |
| Pennsylvania | 1 | 10.25 | 2.67 | 1.71 | 14.63 | 19.78 | 74.0% |
| | 2 | 11.00 | | | 15.38 | | 77.8% |
| | 3 | 14.00 | | | 18.38 | | 92.9% |
| | 4 | 17.50 | | | 21.88 | | 110.6% |
| | Avg | 14.06 | | | | | 110.070 |
| Rhode Island | 1 | 12.05 | 4.47 | 8.28 | 24.80 | 24.72 | 100.3% |
| | 2 | 16.62 | | | 29.37 | | 118.8% |
| | 3 | 20.59 | | | 33.34 | | 134.9% |
| Vermont | 1 | 7.72 | 1.03 | 4.00 | 12.75 | 27.40 | 46.5% |
| | 2 | 8.35 | | | 13.38 | | 48.8% |
| | 3 | 21.63 | | | 26.66 | | 97.3% |
| | Avg | 14.41 | | | | | 01.070 |
| Virginia | 1 | 10.74 | 1.30 | 3.10 | 15.14 | 25.00 | 60.6% |
| | 2 | 16.45 | | | 20.85 | | 83.4% |
| | 3 | 29.40 | | | 33.80 | | 135.2% |
| | Avg | 13.60 | | | | | 150.270 |
| West Virginia | 1 | 14.99 | 1.60 | 7.24 | 23.83 | 25.58 | 93.2% |
| | 2 | 22.04 | | | 30.88 | | 120.7% |
| | 3 | 43.44 | | | 52.28 | | 204.4% |
| | Avg | 24.58 | | | | | 201.170 |

| Table 37: Securities Referenced in this Report | | | | | | |
|--|--------|-------|--------|--|--|--|
| Company Name | Symbol | Price | Rating | | | |
| AT&T | T | 12.64 | B-1-7 | | | |
| BellSouth | BLS | 22.67 | B-2-7 | | | |
| Qwest | Q | 2.97 | C-3-9 | | | |
| SBC | SBC | 23.38 | B-2-7 | | | |
| Sprint FON | FON | 9.77 | C-2-8 | | | |
| Verizon Communications | VZ | 30.18 | B-2-7 | | | |

Source:



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Appendix II

■ 2Q02 Company Reports



| Restated Investment Opinions | | | | |
|------------------------------|--------|--------------------|-------------------|---------------------|
| Company Name | Ticker | Price 9-19-2002 | Current Rating | Previous Rating* |
| AT&T | T | 12.24 | B-1-7 | C-2-2-7 |
| BellSouth | BLS | 21.97 | B-2-7 | B-3-3-7 |
| Broadwing | BRW | 2.02 | C-3-9 | D-4-4-9 |
| Equant | ENT | 3 | C-2-9 | D-3-3-9 |
| Infonet | IN | 2.18 | C-2-9 | D-3-3-9 |
| Level(3) | LVLT | 4.14 | C-3-9 | D-4-4-9 |
| Qwest | Q | 2.85 | C-3-9 | D-4-4-9 |
| SBC | SBC | 23.38 | B-2-7 | B-3-3-7 |
| Sprint FON | FON | 9 | C-2-8 | D-3-3-8 |
| Verizon Communications | VZ | 29.43 | B-2-7 | B-3-3-7 |

Source: Merrill Lynch

^{*} Effective September 9, 2002, Mertill Lynch has revised its Investment Opinion Rating System for equity securities. The revised system will continue to include a Volatility Risk Rating, an Investment Rating and an Income Rating described below. —Volatility Risk Ratings are now composed of three categories rather than four: A – Low; B – Medium; and C – High. The Volatility Risk Rating continues to reflect potential price fluctuation based on historical measures of price volatility. —Investment Ratings, indicators of expected total return (price appreciation plus yield) within the 12-month period from the date of the initial rating, are: 1 – Buy (10% or more for Low and Medium Volatility Risk Securities – 20% or more for High Volatility Risk securities); 2 – Neutral (0-10% for Low and Medium Volatility Risk securities); 3 – Sell (negative return); and 6 – No Rating. —Income Ratings, indicators of notential cash dividends, are: 7 – samehigher (dividend considered to be secure):

[—]Income Ratings, indicators of potential cash dividends, are: 7 – same/higher (dividend considered to be secure); 8 – same/lower (dividend not considered to be secure); and 9 – pays no cash dividend.



25 July 2002

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AT&T Corp.

Results Better than Expected – Management Modestly Raises Its 2002 Estimates

Reason for Report: 20 Review

BUY*

Long Term BUY

| Price: | \$8.80 |
|--------|--------|
|--------|--------|

| 2001A | 2002E | 2003E |
|---------|---|--|
| d\$1,33 | d\$3.47 | \$0.18 |
| NA | NA | 48.9x |
| \$0.19 | \$0.23 | \$0.18 |
| 50.1x | 95.2x | 190.4x |
| | -47.4% | -50.0% |
| | \$0.12 | \$0.16 |
| \$0.04 | \$0.04 | |
| \$2.03 | \$2.36 | \$2.28 |
| 4.7x | 4.1x | 4.3x |
| 15.7 | 13.0 | 12.3 |
| 4.3x | 5.7x | 6.1x |
| \$0.15 | \$0.15 | \$0.15 |
| 1.6% | 1.6% | 1.6% |
| | \$0.19 50.1x \$0.04 \$2.03 4.7x 15.7 4.3x \$0.15 | d\$1.33 d\$3.47 NA NA \$0.19 \$0.23 50.1x 95.2x -47.4% \$0.12 \$0.04 \$0.04 \$2.03 \$2.36 4.7x 4.1x 15.7 13.0 4.3x 5.7x \$0.15 |

Opinion & Financial Data

Investment Opinion: C-2-2-7 Volatility Risk: Above Average Mkt. Value / Shares Outstanding (mn): \$33,838 / 3,845.2 Book Value/Share (Jun-2002): \$11.14 Price/Book Ratio: 0.8xROE 2002E Average: 13.4% LT Liability % of Capital: 45.0% ROTC: 3.8% Cash Realization Ratio: 136.9%

Stock Data

52-Week Range: \$20.95-\$8.20 Symbol / Exchange: T / NYSE Options: Chicago

Institutional Ownership-Vickers: 47.5% Brokers Covering (First Call): 17

ML Industry Weightings & Ratings**

| Strategy; Weighting Rel. to Mkt.: | | |
|------------------------------------|---------------|---------------|
| Income: | In Line | (18-Jun-2001) |
| Growth: | In Line | (18-Jun-2001) |
| Income & Growth: | Overweight | (25-Oct-2000) |
| Market Analysis; Technical Rating: | Below Average | (26-Jul-2000) |

^{*}Intermediate term opinion last changed on 02-Jan-2002.

Investors should assume that Merrill Lynch is seeking or will seek investment banking or other business relationships with the companies in this report.

Refer to important disclosures at the end of this report.

Merrill Lynch Global Securities Research & Economics Group Global Fundamental Equity Research Department

Highlights:

- On July 23rd, AT&T reported normalized 2Q 2002 EPS of \$0.07, 250% above our est. of \$0.02 and 133% greater than consensus of \$0.03. YoY EPS rose 75% from \$0.04.
- On a reported basis, EPS from continuing operations were d\$3.49. This dramatic GAAP loss reflects a \$13.1B post tax non cash asset impairment charge.
- Revenues for the quarter were \$12.1B, 3.3% above our est. of \$11.7B, but still down 6.2% YoY. 2Q EBITDA was \$3.4B, 9.1% above our est. of \$3.1B, but again still down 13.5% YoY. EBITDA margin was 27.7%, 140bps higher than our est. of 26.3%.
- While we believe AT&T can certainly benefit from WorldCom's woes, we expect customer wins today will take until 2003 to materially feed through to revenues. In the meantime, AT&T indicates that it sees few signs of any pick-up in corporate IT spending.
- Our Buy rating on AT&T remains predicated on the successful closure of the AT&T Broadband/Comcast merger and the fact that our colleague Jessica Reif Cohen rates Comcast (CMCSK; C-1-1-9; \$18.90) a Strong Buy. (Comcast accounts for 2/3rds of the value of T stock). Also we believe that the telecom "stub" is undervalued.

Stock Performance



^{**}The views expressed are those of the macro department and do not necessarily coincide with those of the Fundamental analyst.



Results Better than Expected – Management Modestly Raises Its 2002 Estimates

On July 23rd, AT&T reported 2Q 2002 results. Normalized diluted EPS from continuing operations were \$0.07, 250% above our estimate of \$0.02 and 133% greater than consensus of \$0.03. YoY EPS rose 75% from \$0.04.

On a reported basis, EPS from continuing operations was d\$3.49 – the massive loss being primarily attributable to a \$11.8B post tax (\$16.5B pre-tax) asset impairment charge related to the application of FAS 142 to AT&T's cable business. This accounted for \$3.22 of the variance vs. normalized EPS. Other negative items extracted from reported EPS to derive normalized EPS were also non-cash in nature and reflected a reassessment of the "realizability of certain investments": a) equity investment impairment charges (d\$0.20) and b) "other expense, net" (d\$0.14) from cost method impairment charges.

Revenues for the quarter were encouraging - \$12.1B, 3.3% above our estimated \$11.7B, although still down 6.2% YoY. 2Q EBITDA was \$3.4B, 9.1% above our estimated \$3.1B, but again still down 13.5% YoY. EBITDA margin was 27.7%, 140bps higher than our estimate of 26.3%.

While we believe AT&T can certainly benefit from WorldCom's woes, we expect customer wins are unlikely to fed through to material revenues until 2003. In the meantime, and consistent with peers reporting to date for the quarter, AT&T has indicated that there appear to be few signs of any pick-up in corporate IT spending as its relates to telecom services at least.

Our Buy rating on AT&T remains predicated on the successful closure of the AT&T Broadband/Comcast merger and the fact that our colleague Jessica Reif Cohen rates Comcast a Strong Buy. See our report of July 11th which discusses the outstanding issues related to the closure of this transaction following the positive shareholder vote at both companies on July 10th. (Comcast accounts for 2/3rds of the value of T stock). Also per our sum of the parts analysis we believe that the telecom "stub" is undervalued.

Valuation

The Comcast/ AT&T Broadband transaction is the key to AT&T's valuation. Given Comcast's current stock price of \$18.40, the implied equity value accruing to AT&T shareholders from the merger is \$5.89 per AT&T share - taking an adjusted 0.32x exchange ratio applied to Comcast's stock price). In Table 1 we set out our latest sum of the parts analysis marking Comcast to market but ascribing standalone multiples to the two key elements of the ongoing AT&T Communications business. Given the demise of WCOM and MCIT the two primary

comps for these businesses are now no longer available to us and of course valuations across the group remain severely depressed.

Table 1: AT&T Trading Sum-of-the-Parts

| | | \$B | Per share |
|-------------------------|----------------|-------------|-------------|
| Consumer Services | | | |
| Estimated 2002 EBITDA | \$3.1 | | |
| EBITDA Multiple | <u>2.0x</u> | | |
| Consumer Services Value | \$6.2 | \$6.2 | \$1.61 |
| Business Services | | | |
| Estimated 2002 EBITDA | \$7.8 | | |
| EBITDA Multiple | <u>4.5x</u> | | |
| Business Services Value | \$35.1 | \$35.1 | \$9.13 |
| Comcast | | | |
| Number of shares (B) | 1.230 | | |
| Price per share | <u>\$18.40</u> | | |
| Comcast value | \$22.6 | \$22.6 | \$5.89 |
| Total Enterprise Value | | \$64.0 | \$16.63 |
| Less: Adj. Net Debt | | <u>13.4</u> | <u>3.48</u> |
| Equity Value | | \$50.6 | \$13.15 |
| Less: AT&T Canada put | | 3.7 | 0.95 |
| Adjusted Equity Value | | \$46.9 | \$12.19 |
| Shares Outstanding (B) | | 3.845 | |

Source: Company reports and Merrill Lynch estimates

Segmental Analysis

In Table 1 we show the variance in key P&L metrics between our estimates and the 2Q actuals:

Table 2: 2Q 2002: Actuals vs. ML Estimates

| | Q2'02MLE | Q2'02A | % Variance |
|------------------------------|-------------|------------|------------|
| Business | 6,450 | 6,742 | 5% |
| Consumer | 2,839 | 2,911 | 3% |
| Broadband | 2,530 | 2,526 | 0% |
| Corp and Other | <u>-100</u> | <u>-75</u> | -25% |
| Total Revenue | 11,719 | 12,104 | 3% |
| Costs of Services & Products | 3,267 | 3,339 | 2% |
| Access and Other Connection | 2,775 | 2,763 | 0% |
| SG&A | 2,600 | 2,644 | 2% |
| D&A | 2,068 | 1,879 | -9% |
| Goodwill | <u>80</u> | <u>80</u> | 0% |
| Total Operating Expenses | 10,790 | 10,705 | -1% |
| EBITDA | 3,077 | 3,358 | 9% |
| Operating Income | 929 | 1,399 | 51% |
| Interest Expense | <u>775</u> | <u>716</u> | -8% |
| EBT | 154 | 683 | 344% |
| Income taxes | 82 | 389 | 375% |
| Minority interest | <u>0</u> | <u>-31</u> | NA |
| Earnings to common | 71 | 263 | 270% |
| Fully diluted sh out (MM) | 3,611 | 3,649 | 1% |
| Reported EPS | 0.02 | 0.07 | 266% |

Source: Company Reports and Merrill Lynch Estimates



■ Consumer Services

No surprise to see that Consumer Services continued to be impacted by customer migration to lower priced plans, competition and wireless substitution – revenues from this segment fell 21.8% YoY to \$2.9B, although that was better than our estimate of \$2.8B. Consumer EBITDA was \$845MM, 33.3% lower than last year's \$873MM as fixed cost leverage works against AT&T at a time of such fast revenue shrinkage. Note that wireless substitution reduces traffic volumes and thus revenues but does not materially affect AT&T's subscriber count so leaving customer count based cost items unchanged. AT&T continues to work to "variabalize" (we are not sure if that word is in the dictionary but we know what they mean) its cost structure as a result.

Using UNE-P, AT&T Consumer entered the Ohio and Illinois local service markets during the quarter. The company now offers local services to 1.5MM customers in six states (four of which are SBC markets). AT&T will enter the New Jersey local market in 3Q and is considering entry into both California and Pennsylvania. AT&T noted that it had hit a 6% market share in Michigan and mid-teens % market share in New York. On its investor conference call, management stated that they would not enter a market unless the UNE-P rates were low enough to allow for a 45% gross margin.

We assume that recent UNE rate cuts approved by the California PUC now allow them to met this test. SBC in its 2Q results pointed to the sharp swing from retail to UNE-P on its consumer access line side as a reason for weakness in its voice revenues. We note that SBC has 18.0MM access lines in California of which 17.5MM (97%) are retail. In contrast in Texas, where AT&T (and WorldCom also) has been actively offering local service on a retail basis for some time it has 9.9MM access lines of which 8.3MM (84%) are retail. Thus were California to go to say 85% retail over time that would amount to a 2.2MM retail to UNE-P swing for SBC ... or 4% of SBC retail access lines.

AT&T noted signs of stabilization in the rate of wireless and Internet substitution. Additionally, the company observed relatively stable pricing during the quarter, noting that the RBOC entry into the LD market had not yet triggered any irrational price points. And no reason that it should in our view since it has proved so easy for the RBOCs to win consumer LD share on the basis of brand and bundle alone.

By our projections RBOC LD entry will accelerate dramatically in 2H 2002 however suggesting that current revenue decline stabilization (meaning no acceleration of the rate of decline!) might not last to year end given a likely surge of approvals at Qwest and BellSouth and the crucial year end approval for SBC in California.

| rable . | 3: RBOC 271 Reli | et Time Ta | ible | |
|--------------|------------------|------------|------------------|---------------------------|
| | BellSouth | SBC | Qwest | Verizor Communications |
| 4Q99 | | | | New York |
| 1Q00 | | | | 1 |
| 2Q00 | | Texas | | |
| 3Q00 | | | | |
| 4Q00 | | | | ** |
| 1Q01 | | Kansas | | |
| | | Okłahoma | | |
| 2Q01 | | | | |
| 3Q01 | | 1 | | Connecticut |
| | | | | Pennsylvania |
| 4Q01 | | Arkansas | ,, ,, | |
| | | Missouri | | |
| 1Q02 | | | | Rhode Island |
| 2Q02 | Georgia | *** | | Maine |
| | Louisiana | | | New Jersey |
| | | | | Vermont |
| 3Q02 | Alabama | | Colorado | New Hampshire |
| | Kentucky | | Idaho | |
| | Mississippi | | Iowa | |
| | North Carolina | | Nebraska | |
| | South Carolina | | North Dakota | |
| 4Q02 | Florida | California | Montana | Maryland |
| | Tennessee | | New Mexico | Virginia |
| | | | Oregon | Dist. Of Columbia |
| | | | South Dakota | Delaware |
| | | | Washington | West Virginia |
| | | | Utah | |
| - | | | Wyoming | |
| 1Q03 | | Nevada | Minnesota | |
| | | | Arizona | |
| 2Q03 | | Illinois | | |
| | | Indiana | | |
| | | Michigan | | |
| | | Ohio | | |

Source: Company reports and Merrill Lynch estimates

Management now believes 2002 Consumer EBIT will decline YoY at a high single-digit % rate, compared to previous estimates of a low double-digit % decline. Furthermore, they expect Consumer revenue to decline at the "favorable" end of the previously stated mid-20% range.

Wisconsin



■ Business Services

AT&T business services revenues continued to be negatively impacted by lower corporate IT spending and pricing pressures ... revenues fell 3.8% YoY to \$6.7B, but were 4.5% above our estimate of \$6.5B.

Long distance voice revenues declined 12% YoY, with continued outbound call volume growth offset by inbound volume declines. Data and IP and managed services rose approx. 7% YoY, while packet services revenue grew approx. 18% YoY and within that IP specifically by 26%. In general the growth of the various data services reported by AT&T was only modestly down on 1Q growth rates.

With Sprint FON having reported data revenues for 2Q down 4% YoY and internet revenues down 2% YoY (although up 14% on a dedicated basis excluding dial). AT&T's performance confirms its claim to share gains.

AT&T added 200K local access lines in 2Q, bringing the total to 3.3MM – it is the largest CLEC in the country. As a result, local voice revenues grew 6% YoY. UNE-P lines now represent 15% of the company's voice business access lines.

EBITDA for this segment was \$1.8B, a decline of 26.2% YoY. Management continues to ascribe the decline in EBITDA margin to pricing pressures and the transition from higher margin long distance services to lower margin growth services. It is not clear to us when this mix shift effect will work its way through but it seems set to be with us for several more quarters yet!

Is AT&T seeing some flight to quality benefits on close to a "last man standing" basis? Its seems so from management comments although they did state on the 2Q conference call that the implications of WorldCom's bankruptcy would not be clear for some time. As with Sprint and Level(3) they reported an increased level of customer inquiries, enterprise data contracts are often complex and are likely to take a long time to either unwind or expire on the one hand — or move from sales lead through a bidding process to a signed contract and then revenues on the other.

In the meantime the company stated that there appears to be little signs of any pick-up in corporate IT spending as it relates to telecom services at least.

Management expects Business Services 2002 revenue to decline YoY by 4.5-5%. 2002 EBIT is expected to decline 2-3% from the 2001 EBIT of 13.3%. Once again, this is at the favorable end of previous guidance.

Broadband

AT&T Broadband reported weak 2Q results. Revenue and EBITDA estimates were essentially in line with our expectations, while subscriber trends were weaker than we had anticipated.

Broadband EBITDA increased 59% to \$641MM, against easy comparisons. The EBITDA margin, which excludes merger cost of \$100MM, was 25.4% (well below the 40% industry average), vs 20.4% in 1Q and 17.5% last year. Management maintained its publicly stated expectations of \$2.4-\$2.5B in EBITDA for 2002.

Broadband revenue grew 10% to \$2.5B. Video revenue grew a weak 3% due to continued subscriber losses. Data revenue increased 46% but ARPU declined \$2.15 vs 1Q. Telephone revenue increased 77% helped by nearly a \$4 gain in ARPU vs 1Q. Advertising revenue increased 8%.

Basic subscriber growth was down 2.6% YoY. AT&T Broadband lost 125K basic subscribers in 2Q. Management attributes 50% of the losses to seasonality, roughly in line with last year, and the other 50% to competition in non-upgraded areas (this is also well above the 35K losses to competition in 1Q). We now estimate 330K subscriber losses for the year, which is below our prior estimate of 200K. We forecast a loss of 50K subs in 3Q and a gain of 25K subs in 4Q. We note that there could be downside risk to estimates based on current trends.

RGU trends were down vs 1Q and also YoY, with 444 RGUs added during the quarter, compared to 558 in 2Q 2001. We are reducing our RGU subscriber estimates. We now project total RGU net adds of 2.1MM in 2002, below our prior estimate of 2.23MM and below management's expectations. Based on current trends we believe there is downside risk to our estimates, which assume a relatively strong pick-up in 2H02.

AT&T Broadband added 202K digital subscribers in 2Q, down 26% YoY and also down 21% vs 1Q. We forecast net adds of 908K for the full year, below our prior 945K estimate, to under 4.4MM subs.

AT&T Broadband added 137K data subscribers in 2Q, up 5% YoY and down 2% vs. 1Q. We maintain our full year estimate of 690K net adds to just under 2.9MM subs.

AT&T Broadband added 105K residential telephony subscribers in 2Q, down 30% YoY and also down 5% vs 1Q. We forecast net adds of 518K for the full year, below our prior 580K estimate, to about 1.5MM subs.

Balance Sheet

AT&T's balance sheet continued to improve in the quarter – fitting testament to the turnaround in the company's financial profile that has occurred during the tenure of prior CFO Chuck Noski.

Net debt (in monetizations) was \$34.5B at end 1Q and declined to \$33.2B at end 2Q on an underlying basis even after an adverse market to market movement on foreign denominated debt of \$0.4B. Actual end 2Q net debt was \$30.7B — when the \$2.5B equity issue proceeds are also reflected ... however these will soon be departing the company to satisfy the put option in the hands of AT&T Canada equity holders.



Management 3Q/ 2002 Guidance

Management expects full company 3Q revenue to decline slightly more than 2Q (ie less than \$12.1B revenues). Excluding other expense/income, 3Q EPS is expected to be in the range of \$0.03-\$0.06.

As noted above, management now forecasts Consumer revenues to decline YoY in the "favorable" end of the mid-20% range. From a 2001 base of \$14.8B Consumer revenues, we assume this means a 2002 Consumer revenue of \$11.1B-11.7B.

They expect Consumer EBIT to fall by a high single-digit % rate (from \$4.7B) and Business 2002 EBIT is expected to decline 2-3% from the 2001 EBIT of 13.3% (\$4.3B). Management maintained its publicly stated expectations of \$2.4-\$2.5B for 2002 Broadband EBITDA.

Management reiterated on the call that the reintegration of Concert into the business services unit will increase 2002 revenue by \$575-675MM, while EBIT will be decreased by \$200-250MM.

Management reiterated its 2002 Communications Capex target of \$3.8-4.2B.

Revised ML Forecasts

On the back of a slightly improved outlook for communications services, we have raised our 2002 revenue forecast from \$46.9B to \$48.0B. Our 2003 revenue goes from \$44.7B to \$45.8B.

We have raised our 2002 Consumer revenue forecast by 2% to \$11.6B and our Business revenue forecast by 3% to \$26.5B.

We have raised our 2002 group EBITDA forecast from \$12.3B to \$13.0B. Similarly, our 2003 EBITDA forecast has been raised from \$11.7B to \$12.3B.

Our 2002 normalized recurring EPS goes from \$0.10 to \$0.23 and our 2003 EPS goes from \$0.05 top \$0.18.

Note that all these projections assume the current AT&T structure through out 2002 and 2003. This is a gross simplification to the extent that we expect the Comcast merger with AT&T Broadband to occur by year end materially altering the AT&T P&L and balance sheet.

Merrill Lynch is currently acting as financial advisor and has rendered a fairness opinion to Comeast Corporation in connection with its proposed acquisition of AT&T Broadband, which announced on December 19, 2001. Comeast Corporation has agreed to pay a fee to Merrill Lynch for its financial advisory services, a significant portion of which is contingent upon the consummation of the proposed transaction.

| Year to December (\$MM) | 2001 | 2002 | 2003 |
|------------------------------|--------------|-------------|--------------|
| Business | 27,705 | 26,472 | 25,415 |
| Consumer | 14,843 | 11,632 | 9,306 |
| Broadband | 9,157 | 10,155 | 11,329 |
| Corp and Other | <u>-328</u> | <u>-294</u> | <u>-200</u> |
| Total Revenue | 51,377 | 47,965 | 45,850 |
| Costs of Services & Products | 12,761 | 13,214 | 12,857 |
| Access and Other Connection | 12,136 | 11,320 | 10,729 |
| SG&A | 10,821 | 10,432 | 9,972 |
| D&A | 6,729 | 7,877 | 8,105 |
| Goodwill | 2,609 | 319 | 300 |
| Total Operating Expenses | 45,056 | 43,162 | 41,963 |
| EBITDA | 15,659 | 12,999 | 12,292 |
| Operating Income | 6,321 | 4,804 | 3,887 |
| Interest Expense | <u>3,325</u> | 2,903 | <u>2,850</u> |
| EBT | 2,996 | 1,901 | 1,037 |
| Income taxes | 1,482 | 1,044 | 363 |
| Minority interest | 488 | 0 | 0 |
| Losses from Equity Inv | <u>603</u> | 0 | <u>0</u> |
| Earnings from continuing ops | 1,399 | 857 | 674 |
| Premium on Wireless Stock Ex | 80 | 0 | 0 |
| Pref Dividend | <u>652</u> | 0 | 0 |
| Earnings to common | 667 | 857 | 674 |
| Fully diluted sh out (MM) | 3,643 | 3,703 | 3,845 |
| EPS | 0.18 | 0.23 | 0.18 |
| Free Cash Flow | | | |
| Net Income | 667 | 857 | 674 |
| + Dep & Amort | 6,729 | 7,877 | 8,105 |
| - Dividends | -546 | -555 | -577 |
| - Cap Exp | -9,310 | -7,932 | -7,931 |
| + Equity Issued | 224 | 2,250 | 0 |
| - AT&T Canada Obligation | 0 | -3,664 | ő |
| +-Other | 12,987 | <u>-200</u> | -200 |
| = Free Cash Flow | 30,463 | -1,368 | 71 |
| Net Debt | 34,300 | 35,668 | 35,597 |

Source: Company Reports and Merrill Lynch Estimates



| Intermediate-Term Ratings Distribution: | Telecommunication | ns Group (as of 05 Ju | ly 2002) | | |
|---|--------------------|-----------------------|-----------------------------|-------|---------|
| Coverage Universe | Count | Percent | Inv. Banking Relationships" | Count | Percent |
| Strong Buy | 17 | 9.88% | Strong Buy | 7 | 11.11% |
| Buy | 44 | 25.58% | Buy | 17 | 26.98% |
| Neutral | 77 | 44.77% | Neutral | 26 | 41.27% |
| ntermediate-Term Ratings Distribution: | Global Group (as o | f 05 July 2002) | | | 1112770 |
| Coverage Universe | Count | Percent | Inv. Banking Relationships" | Count | Percent |
| Strong Buy | 521 | 17.82% | Strong Buy | 228 | 25.94% |
| Buy | 1048 | 35.84% | Buy | 339 | 38.57% |
| Neutral | 1163 | 39.77% | Neutral | 267 | 30.38% |
| Reduce/Sell | 193 | 6.60% | Reduce/Sell | 45 | 5.12% |

^{*} Companies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months.

[CMCSK] One or more analysts responsible for covering the securities in this report owns such securities.

[CMCSK, T] MLPF&S or an affiliate was a manager of a public offering of securities of this company within the last 12 months.

[T] MLPF&S was a manager of the most recent public offering of securities of this company within the last three years.

[CMCSK, T] MLPF&S or an affiliate has received compensation for investment banking services from this company within the past 12 months.

[CMCSK, T] MLPF&S or an affiliate expects to receive or intends to seek compensation for investment banking services from this company within the next

In Germany, this report should be read as though Merrill Lynch has acted as a member of a consortium which has underwritten the most recent offering of securities during the last five years for companies covered in this report and holds 1% or more of the share capital of such companies.

The analyst(s) responsible for covering the securities in this report receive compensation based upon, among other factors, the overall profitability of Merrill Lynch,

during the last five years for companies covered in this report and holds 1% or more of the share capital of such companies.

The analyst(s) responsible for covering the securities in this report receive compensation based upon, among other factors, the overall profitability of Merrill Lynch, including profits derived from investment banking revenues.

OPINION KEY: Opinions include a Volatility Risk Rating, Intermediate-Term and Long-Term Investment Ratings and an Income Rating. VOLATILITY RISK RATINGS, indicators of optential price fluctuation, are: A - Low, B - Average, C - Above Average, D - High. INTERMEDIATE-TERM INVESTMENT RATINGS, indicators of expected total return (price appreciation plus yield) within the 12-month period from the date of the initial rating, are: 1 - Strong Buy (minimum 20% - more for High Risk securities); 2 - Buy (ginimum 10%); 3 - Neutral (0-10%); 4 - Reduce/Self (negative return); 6 - No Rating, LONG-TERM INVESTMENT RATINGS, indicators of fundamental company actors demonstrating potential total return for the 3-year period from the date of the initial rating, are: 1 - Strong Buy (aggregate minimum 40%); 2 - Buy (aggregate minimum 40%); 3 - Neutral (aggregate 0-20%); 4 - Reduce/Self (negative return); 6 - No Rating, INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend not considered be secure); and 5 - same/lower (dividend not conside



23 July 2002

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BellSouth Corp

It's Official – There is NO Place To Hide. Management Lowers Estimates

Reason for Report: 2Q Earnings Review

NEUTRAL*

Long Term NEUTRAL

| ce: \$22 | .61 |
|----------|-----|
| ce: \$22 | • |

| Estimates (Dec) | 2001A | 2002E | 2003E |
|--|----------------------------------|----------------------------------|----------------------------------|
| GAAP EPS | \$1.36 | | |
| EPS*: | \$2.22 | \$2.09 | \$2.09 |
| P/E: | 10,2x | 10.8x | 10.8x |
| EPS Change (YoY): | | -5.9% | 0.0% |
| Consensus EPS: (First Call: 19-Jul-2002) | | \$2.34 | \$2.43 |
| Q3 EPS (Sept): | \$0.56 | \$0.52 | |
| EBITDA (\$B) EV/EBITDA Cash Flow/Share: Price/Cash Flow: | \$13.5 4.3x \$5.16 4.4x | \$12.9 4.5x \$5.02 4.5x | \$12.9 4.5x \$5.11 4.4x |
| Dividend Rate: Dividend Yield: *Normalized | \$0.76 3.4% | \$0.79 3.5% | \$0.80 3.5% |

Opinion & Financial Data

Investment Opinion: B-3-3-7 Volatility Risk: Average Mkt. Value / Shares Outstanding (mn): \$42,552 / 1,882 Book Value/Share (Jun-2002): \$9.42 Price/Book Ratio: 2.4xROE 2002E Average: 26.2% LT Liability % of Capital: 35.3% Est. 5 Year EPS Growth: Next 5 Year Dividend Growth: 0.0%

Stock Data

52-Week Range: \$42.95-\$27.50 Symbol / Exchange: BLS / NYSE Options: AMEX

Options: AMEX
Institutional Ownership-Vickers: 48.9%
Brokers Covering (First Call): 23

ML Industry Weightings & Ratings**

| Strategy; | Weighting | Rel, | to Mkt.: | : |
|-----------|-----------|------|----------|---|
|-----------|-----------|------|----------|---|

| Income: Overweight (25-Oct-2000) | Growth: In Line (25-Oct-2000) | Income & Growth: Overweight (25-Oct-2000) |

Market Analysis; Technical Rating: Below Average (13-Fcb-2002)

Investors should assume that Merrill Lynch is seeking or will seek investment banking or other business relationships with the companies in this report.

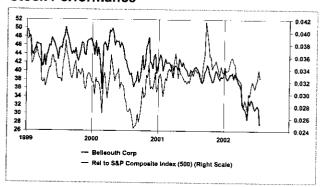
Refer to important disclosures at the end of this report.

Merrill Lynch Global Securities Research & Economics Group Global Fundamental Equity Research Department

Highlights:

- On July 22nd BellSouth reported very disappointing 2Q 2002 results. Normalized EPS were \$0.53, an 8.6% decrease YoY. This fell short of our \$0.60 est. by 11.7% and was 8.6% lower than consensus of \$0.58.
- GAAP EPS were just \$0.16, down 66.0% YoY from \$0.47 in 2Q 2001.
- These results indicate to us that we have not yet seen an "inflection" point in the fundamentals for the wireline service providers, rather far from it. In addition for BellSouth, and we suspect the other RBOCs yet to report, the results only serve to reconfirm our sense that secular issues are clearly having as large, if not a larger, an impact on revenues than cyclical economy related trends. Thus the results also point to a weaker outlook into the longer term in our view. We reduced our long term rating to Neutral as a result.
- That said the company has a strong balance sheet, generates cash and trades on a low double digit P/E. So we suspect that the shares will finally start to find support around current levels — based primarily on the cash flow returned to shareholders from both regular dividend and crucially buybacks.

Stock Performance



^{*}Intermediate term opinion last changed on 14-Jun-2002.

^{**}The views expressed are those of the macro department and do not necessarily coincide with those of the Fundamental analyst.



2Q Earnings Summary

On July 22nd BellSouth reported very disappointing 2Q 2002 results. Normalized EPS were \$0.53, an 8.6% decrease YoY from \$0.58 in 2Q 2001. This fell short of our \$0.60 estimate by 11.7% and was 8.6% lower than consensus of \$0.58.

For 1Q we noted that reported EPS of \$0.61 benefited, in comparison to the prior year, from the FAS 142 adjustment — since prior year numbers are impacted by \$0.02/share of goodwill amortization that is no longer charged to earnings in 2002 as a result of FAS 142. Normalized EPS were thus down approximately 3.5% in 1Q despite flat headline numbers — the same effect also prevails in 2Q. Back adjusting 2Q 2001 EPS to exclude FAS 142 gives comparative normalized EPS of \$0.60 and thus an underlying EPS decline of not 8.6% but rather 11.7%.

2Q results were adversely impacted by incremental bad debt expense of \$0.05/share — ex the bad debt expense, "normalized" EPS would have been \$0.58 — however it is clear that the higher than normal levels of bad debt will continue throughout the balance of the year, at least.

GAAP EPS were just \$0.16, down 66.0% YoY from \$0.47 in 2Q 2001. Non-recurring charges accounting for the \$0.37 variance between normalized and reported EPS included a \$0.19/share charge associated with debt related foreign exchange impacts, a \$0.07/share charge reflecting the loss on equity investments, and a \$0.12/share charge connected to the 5,000-person workforce reduction announced in May. A reconciliation of normalized to GAAP EPS is shown in Table 1.

Table 1: Normalized Earnings Summary

| | 2Q '02 | 2Q '01 | % Change |
|--------------------------------------|--------|--------|----------|
| EPS – GAAP | 0.16 | 0.47 | -66.0% |
| Losses on equity investments | 0.07 | | |
| Foreign exch. Impacts (debt related) | 0.19 | 0.06 | 216.7% |
| Workforce reduction | 0.12 | | |
| Adj. to ISP accrual | | 0.05 | |
| EPS - Normalized | 0.53 | 0.58 | -8.6% |

Source: Company reports

Revenues for the quarter were \$7.2B, down 1.6% YoY, and 2.1% below our estimate of \$7.4B. The decline was due largely to lower revenues related to BellSouth's Latin American businesses, which fell 19.8% YoY to \$597MM as well as weak US demand and share loss impacts. 2Q EBITDA was \$3.2B, down 4.5% YoY, and 3.9% beneath our est. of \$3.4B. Capex for the 2Q was \$1.0B, a 39.4% decline YoY.

Table 2 provides a detailed reconciliation of our 2Q estimates for key P&L items vs. the actuals. Of the major business lines only proportionate revenues from the Cingular wireless JV came in ahead—however we note that reported GAAP revenues do not recognize the 40% proportionate share of Cingular revenues seen in the normalized P&L. Reported revenues declined 3.4%.

| Table 2: Quarterly Earnings Variance | | | | | | |
|--------------------------------------|---------|------------|-----------------|--|--|--|
| (\$MM) | 2Q '02A | 2Q '02 MLE | Act/Est | | | |
| Local service | 2,939 | 3,023 | -2.8% | | | |
| Network access | 1,182 | 1,226 | -3.6% | | | |
| Long distance | 213 | 220 | -3.2% | | | |
| Domestic wireless | 1,500 | 1,472 | 1.9% | | | |
| Advertising and publishing | 543 | 456 | 19.0% | | | |
| Other | 858 | 992 | -13.5% | | | |
| Total Operating Revenues | 7,235 | 7,390 | -2.1% | | | |
| Oper, and support expenses | 3,992 | 4,016 | -0.6% | | | |
| Depr. and amortization | 1,353 | 1,352 | 0.0% | | | |
| Total Operating expenses | 5,345 | 5,369 | -0.4% | | | |
| EBITDA | 3,243 | 3,374 | -3.9% | | | |
| Operating Income | 1,890 | 2,022 | -6.5% | | | |
| Interest Expense | 362 | 360 | 0.6% | | | |
| Other Income (Expense), net | 50 | 75 | -33.3% | | | |
| EBT | 1,578 | 1,737 | -9.1% | | | |
| Provision for Income Taxes | 582 | 603 | -3.4% | | | |
| Net Income | 996 | 1,134 | -12.2% | | | |
| Recurring EPS | 0.53 | 0.60 | -11. 9 % | | | |
| Reported EPS | 0.16 | 0.60 | -73.4% | | | |
| Fully Diluted Shares Out. | 1,882 | 1,888 | -0.3% | | | |

Source: Company reports

We have tracked incremental revenue growth sources for all of the RBOCs over the last few years – often highlighting their status as "closet" wireless companies, i.e. they have derived more than half of their incremental growth from wireless in happier times. Now we do an incremental revenue loss analysis – which still shows (admittedly using the non GAAP proportionate wireless accounting) the importance of wireless (it is still growing!), but of course the fact is that it now does so at such a modest rate that it can no longer compensate for poor core business results.

| Table 3: 2Q02 Incremental Revenue Growth | | | | | | |
|--|-------|-------|-----------------|--|--|--|
| \$MM | 2Q01 | 2Q02 | Incremental Rev | | | |
| Communications | | | | | | |
| Core | 3,198 | 3,007 | (191) | | | |
| Data | 1,014 | 1,075 | 61 | | | |
| Call features | 573 | 589 | 16 | | | |
| Total Comm. | 4,785 | 4,671 | (114) | | | |
| Domestic Wireless | 1,414 | 1,500 | 86 | | | |
| Latin America | 749 | 598 | (151) | | | |
| Advertising and publishing | 443 | 543 | 100 | | | |
| Other | (40) | (77) | (37) | | | |
| Total Operating Revenues | 7,351 | 7,235 | (116) | | | |

Source: Company reports

These results indicate to us that we have not yet seen an "inflection" point in the fundamentals for the wireline service providers, rather far from it in our view. In addition for BellSouth, and we suspect the other RBOCs yet to report, the results only serve to



reconfirm our sense that secular issues are clearly having as large, if not a larger, an impact on revenues than cyclical economy related trends.

BellSouth cited many factors impacting its core wireline business. In our view the key issues impacting the company and also the RBOCs are:

- Soft enterprise demand as IT spending remains constrained and adversely impacts data growth plus the access line count as companies downsize.
- **CLEC loss** (increasingly just via the two largest CLECs AT&T and WorldCom) both in the business market and via UNE-P based local/LD bundles in residential.
- Cable telephony substitution for wireline (largely through AT&T Broadband and Cox on a country wide
- Broadband substitution (both DSL/cable modem) for second lines – BellSouth provided some helpful analysis here (their residential second line count of 2.1MM was down 10.6% YoY).
- Direct wireless for wireline substitution (we suspect a marginal, but growing, impact).
- Revenue leakage as resold lines which are already "lost" to competitors move to UNE-P. This seems a particular problem at BellSouth where wholesale lines rose 9% YoY but within that UNE-P rose 190% going from 26% of the total to 68% of the total.
- Loss of access MOU and thus access revenues as LD traffic migrates to wireless. We recently addressed this issue in a separate note with our colleague Linda Mutschler - for BellSouth the trend was sustained into 2Q with access MOU (which exclude wireless on which much lower per minute interconnect payments are received) falling 10.4% YoY and 2.0% QoQ.

While it is hard to capture all of these impacts in our models, we feel they tend to reinforce our view that, for the RBOCs, a return to late 1990s growth rates will prove very challenging. The core access line business is likely to see sustained shrinkage, data and wireless are slowing, and new growth drivers in the shape of DSL and LD entry are not able to adequately compensate for the drags on revenue.

Below we discuss individual segment results for BellSouth's 2Q in more detail, starting with core wireline.

■ Communications Segment Update

Revenue at the Communications segment (including data revenue) declined 2.4% YoY from \$4.8B to \$4.7B, and EBITDA in this segment was \$2.3B, a 5.4% YoY drop. Local access revenue remained approximately flat YoY at \$2.9B, while network access revenue dropped 3.4% YoY to \$1.2B. "Other" revenue fell 22.4% YoY. The only bright spot in this segment came from long

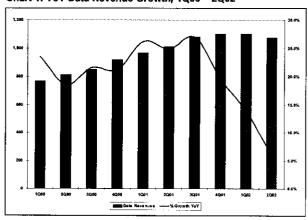
distance revenues thanks to a wholesale and wireless demand and also some benefit from 271 relief in Georgia and Louisiana (service was only launched on May 24th), LD revenues rose 21.7% YoY to \$213MM.

Data revenue for the quarter weakened noticeably to \$1.1B, up just 6.0% YoY.

At the 1Q stage we discussed the differences in growth rates between BellSouth's data business and that of its larger peer SBC. We pointed out that, in contrast to BellSouth, SBC's data growth peaked in late 2000. Even with a rising contribution from equipment sales in 1Q/2Q 2001, growth at SBC fell away throughout 2001 – with the modest level of growth seen in 1Q (SBC data revs in 1Q01 grew YoY at only 2.4%) - and was accentuated by the sharp fall off in equipment sales as management deemphasized this area.

We further remarked that many investors had asked us in the past how long we believed that BellSouth would be able to outperform peers in terms of its growth rate in this area. At that juncture we were still struggling for an answer, and were reduced to paraphrasing the Warren Buffet aphorism along the lines of "when a good management meets a bad market, the bad market usually wins". Meaning that the pressures on corporate IT/telecom spending and the flow through of reduced demand experienced by the IXCs would take its toll eventually ... a comment that was more valid than we realized at the time. BellSouth's data growth, even benefiting from progress in DSL, not only decelerated to the 6.1% growth figure YoY vs. 13.9% growth YoY in 1Q but also data revenues were down 2.4% QoQ.

Chart 1: YoY Data Revenue Growth, 1Q00 - 2Q02



Source: Company reports

2Q DSL adds at BellSouth were weak vs. our estimates. at 74K, a 5.1% YoY decrease from 78K a year ago. We had estimated adds of 143K for 2Q. Total subscribers grew 111% YoY, from 381K in 2Q 2001 to 803K in 2Q 2002.

Access lines continued to trend down, declining 2.1% YoY to 25.1MM. As we have already noted, strong growth was seen in UNE-P at both the wholesale residential and business level. Total residential access



lines were 16.8MM, down 2.1%, while total business access lines dropped 1.6% to 8.2MM. Net access line loss was 287K for 2Q – this compares with 2001 line loss figures of 10K in 1Q, 232K in 2Q, 92K in 3Q and 152K in 4Q.

Cingular Performance

Proportionate revenues from Cingular Wireless rose 6.2% YoY to \$1.5B, roughly in line with our estimates. BellSouth's proportionate EBITDA from its 40% interest in the joint venture was \$472MM, a 4.3% decrease YoY. EBITDA margins dropped 380 bps YoY to 33.8% – network cots rose given that total MOU were up 40% with volume also pushing up roaming and LD expenses. Higher gross post paid adds also pushed up subscriber acquisition costs and we assume the run up to service launch in New York was also a factor – although the impact of these expenses will be largely felt in 3Q given service launch on July 1st.

Wireless net adds at Cingular were 353K for 2Q, a 49.6% drop YoY. However, this exceeded our estimate of 350K by 1%. Digital post paid net ads were 619K, but growth here was offset by continued net losses of reseller and analog subs. Total period end subs of 22.2MM were up 5% YoY – revenue growth roughly matched this given flat service ARPU of \$52/month. Cingular's churn in 2Q was 2.7%, down from 2.9% in 1Q.

Cingular launched not only its voice but also its data service in New York on its GPRS network on July 1st, bringing the total percentage of the network using GPRS to 36%.

■ Latin America Continues to Struggle

BellSouth is the RBOC with the greatest exposure to the Latin American economy, and its earnings continue to be impacted by the economic crises in Argentina, Venezuela, and Brazil.

Reported revenues fell 19.8% to \$597MM, EBITDA declined 18.9% to \$198MM. Devaluations in Argentina and Venezuela had a major impact – on a local currency basis revenues grew roughly 8%.

Although management pointed out that EBITDA margins continued to trend up in the quarter (now 33.1%, up 50 bps YoY reported and 110bp on a proportionate EBITDA basis) as they aggressively look to control costs, wireless ARPU has dropped 23.1% YoY to \$20 and net adds for the quarter in the region fell 96% YoY to 11K. A \$0.19/share charge for debt-related foreign exchange impacts was taken against 2Q earnings; this charge was \$0.06/share for the same period a year ago.

Please refer to our in-depth report of July 2nd for a detailed discussion of the position of BellSouth's Latin America assets and possible options for the assets that we believe the company has going forward.

■ 271 Update

In May 2002, BellSouth received approval to sell long distance services in Georgia and Louisiana. On June 20th the company filed petitions for LD approval in five more states, and a decision is expected in 3Qgiven the FCC's 90 day "clock". Furthermore, management plans to file in its two remaining states, Tennessee and Florida, during 3Q 2002 – indicating that 271 relief throughout BellSouth's service footprint could be attained by YE 2002. The only other RBOC we expect to attain comprehensive 271 relief by YE is Verizon Communications.

Management Estimate Update

Management updated its estimates for FY 2002. The company now expects normalized EPS to be in the range of \$2.13 to \$2.20, versus prior estimates of \$2.36 - \$2.43, implying a decline of about 9.5%. (Given this comes half way through the year it is a startling large adjustment for an RBOC to make. And we suspect this was the primary reason for such a sharp fall in the stock - 18.1% - on the day of the announcement, compounded of course by extreme market volatility and skittishness.)

Management projects total operating revenue will decline 2-3% for the year, compared to their previous forecasts that it would rise 1%.

Data revenue growth is projected to be in the low single digits; and was previously estimated to be in the mid-teens.

DSL customers at year-end are estimated by the company to be 1MM, vs. prior 1.1MM so a near 10% decline in their number. Here BellSouth seemed to be building good momentum in 1Q but the weak 2Q result has subdued our and management's early optimism somewhat. Compared to 2001 year end DSL subs of 620.5K, 1.0MM still represents growth over the year of 61.2%.

Management capex estimates for the year have been slashed yet again. Now down to \$3.7B - \$3.9B, this number is some 12% below management's prior forecast of \$4.2 - \$4.4B. This is a function of the across the board weak demand and management focus on addressing the two largest elements of controllable costs — capex being one (and people expense the other).

Merrill Lynch Estimate Revisions

After reviewing 2Q results and management's estimate changes, we have adjusted our 2002 and 2003 estimates for BellSouth

We are lowering our 2002 revenue estimate by 2.2%, from \$29.7B to \$29.1B, and reducing our 2003 estimate by 3.7% from \$30.6B to \$29.4B to reflect slowing top-line growth, especially in the communications group.

Our 2002 EBITDA estimate drops 5.1%, from \$13.6B to \$12.9B, while our 2003 estimate declines 8.7% from \$14.1B to \$12.9B.



We now anticipate 2002 and 2003 EPS of \$2.09 each year, representing declines of 12.9% and 16.1%, respectively.

Our free cash flow estimates have also changed. First, our 2002 capex estimate (ex wireless) declined 11.9%, from \$4.2B to \$3.7B, while our 2003 estimate fell 12.8%, from \$4.3B to \$3.7B. The impact on our free cash flow estimate was a 3.2% increase in 2002 due to lower interest expenses and capex, moving the estimate from \$4.6B to \$4.7B, and a 2.1% drop in 2003, from \$2.9B to \$2.8B.

Valuation

While the company has a strong balance sheet, generates cash, is committed to a share buy back and trades on a low double digit P/E, these results point to a weaker outlook into the longer term that we need to address in our rating, in our view.

We reduced our rating to long term Neutral immediately after the quarterly announcement. At that time we noted that the slowdown at BellSouth also had implications for the other RBOCs over the longer term, given that the primary points of pain seemed generic to the group and not BellSouth specific. As a result, we also reduced ratings on the two other RBOCs – VZ B-3-2-7 to B-3-3-7 and SBC B-3-2-7 to B-3-3-7.

On our revised projections of our 5 year CAGRs for revenue, EBITDA and EPS are 1.6%, 1.3% and 4.2%, respectively, from a 2002 base.

With investors having reduced faith in the E in P/E calculations generally across the market, we have assessed valuation by taking the dividend yield and adding on the "yield" resulting from a stock buyback. We estimate the latter by dividing the dollar value of the buyback by the number of shares outstanding, then dividing that by the current stock price. The sum of these two yield calculations results in a notional total yield (part recurring, part not of course), which we then compare to 30 yr. bond yields on similarly rated telecoms. Note this is somewhat like a free cash flow (FCF) yield but crucially we only pay attention to FCF that finds its way into the hands of shareholders rather than accounting/notional FCF that might not.

If both the BellSouth and the SBC buybacks are considered (\$2B over 18 months at BellSouth, approx. \$2B over one year at SBC), the total notional cash return yield on the equity of these securities is 6.6% and 7.0%, respectively, as seen in Table 3. BellSouth and SBC's notional cash return yield exceeds the comparable yield on AA-rated corporates of approx. 6.3% (the 30-year treasury plus 100 basis points). This suggests that equity investments in both BellSouth and SBC will outperform the fixed income investments on a total yield basis and suggest that the equity value should start to find a floor around current levels — i.e. even if BellSouth and SBC show only very limited growth going forward, the cash flow returned

to shareholders is better than that available from its debt securities (which do not "grow" at all).

Verizon Communications, however, has equity with a total yield of 5.4%, lower than comparable A-rated corporates of approx. 8.3% (the 30-year treasury plus 300 basis points) – offsetting this in Verizon Communications' case is its cash return to shareholders yield is only its regular yield of 5.4%. This has the great the advantage of being a recurring obligation that management must meet.

Table 4: Comparative Yield Analysis

| Company | Credit Rating (Moody's) | Dividend Yield | Stock Buyback | Total Yield |
|------------------------|-------------------------|-------------------|------------------|----------------|
| BellSouth* | Aa3 | 3.5% | 3.1% | 6.6% |
| SBC | Aa3 | 4.5% | 2.5% | 7.0% |
| AA 30 yr. Corp. Bond | | | | 6.3% |
| Verizon Communications | A1 | 5.4% | 0.0% | 5.4% |
| A 30 yr. Corp. Bond | | | | 8.3% |

Source: Merrill Lynch estimates

BellSouth's \$2B stock buyback assumes that \$1.3B of common stock is bought back over a 12 month period, with the remainder repurchased in the following six months. Bond yields are based on current spread-to-treasury levels.

Table 5: Summary P&L and FCF

| \$MM | 2001 | 2002E | 2003E |
|-----------------------------|--------------|---------------|--------|
| Local | 11,810 | 11,780 | 11,663 |
| Network Access | 4,969 | 4.721 | 4,532 |
| Long Distance | 747 | 896 | 1,255 |
| Wireless Subscriber | 5,654 | 5.940 | 6,198 |
| Advertising and publishing | 2,091 | 2,070 | 2,091 |
| Other | 4,362 | 3,654 | 3,689 |
| Total Revenue | 29,633 | 29,062 | 29,427 |
| Operations and Support | 16,129 | 16,198 | 16,570 |
| Depreciation & Amortization | 5,544 | <u>5,</u> 511 | 5,680 |
| Total Operating Expenses | 21,673 | 21,709 | 22,250 |
| EBITDA | 13,504 | 12,864 | 12,857 |
| EBITDA Margin | 45.6% | 44.3% | 43.7% |
| Operating Income | 7,960 | 7,353 | 7,177 |
| Interest Expense | 1,547 | 1.390 | 1,090 |
| Other Income (Net) | <u>115</u> | 228 | 150 |
| EBT | 6,528 | 6,191 | 6,236 |
| Income Taxes | <u>2,343</u> | 2,249 | 2,307 |
| Net Income | 4,185 | 3,941 | 3,929 |
| EPS (Fully Diluted) | \$2.22 | \$2.09 | \$2.09 |
| Fully Diluted Sh Out (MM) | 1,887 | 1,884 | 1,882 |
| Free Cash Flow | | | |
| EBITDA | 11,702 | 11,023 | 10,874 |
| less Capex | -6,041 | -3,700 | -3.724 |
| less Interest | -1,547 | -1,390 | -1,090 |
| less Dividend | -1,434 | -1,488 | -1,506 |
| less Taxes | -2,343 | -2,249 | -2,317 |
| Other | <u>-984</u> | <u>2,555</u> | 605 |
| FCF | -647 | 4,750 | 2,852 |
| Net Debt | 19,618 | 14,868 | 12,016 |

Source: Company reports and Merrill Lynch estimates



| Intermediate-Term Ratings Distribution: | Telecommunication | ns Group (as of 05 Ju | ly 2002) | | |
|---|---------------------|-----------------------|-----------------------------|-------|---------|
| Coverage Universe | Count | Percent | іпv. Banking Relationships* | Count | Percent |
| Strong Buy | 17 | 9.88% | Strong Buy | 7 | 11.11% |
| Buy | 44 | 25.58% | Buy | 17 | 26.98% |
| Neutral | 77 | 44.77% | Neutral | 26 | 41.27% |
| Reduce/Sell | 34 | 19.77% | Reduce/Sell | 13 | 20.63% |
| Intermediate-Term Ratings Distribution: | Global Group (as of | f 05 July 2002) | • | | |
| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
| Strong Buy | 521 | 17.82% | Strong Buy | 228 | 25.94% |
| Buy | 1048 | 35.84% | Buy | 339 | 38.57% |
| Neutral | 1163 | 39.77% | Neutral | 267 | 30.38% |
| Reduce/Sell | 193 | 6.60% | Reduce/Sell | 45 | 5.12% |

^{*} Companies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months.

[VZ, SBC] MLPF&S or an affiliate was a manager of a public offering of securities of this company within the last 12 months.
 [VZ] MLPF&S was a manager of the most recent public offering of securities of this company within the last three years.
 [VZ, SBC] MLPF&S or an affiliate has received compensation for investment banking services from this company within the past 12 months.
 [VZ, SBC, BLS] MLPF&S or an affiliate expects to receive or intends to seek compensation for investment banking services from this company within the

In Germany, this report should be read as though Merrill Lynch has acted as a member of a consortium which has underwritten the most recent offering of securities

In Germany, this report should be read as though Merrill Lynch has acted as a member of a consortium which has underwritten the most recent offering of securities during the last five years for companies covered in this report and holds 1% or more of the share capital of such companies.

The analyst(s) responsible for covering the securities in this report receive compensation based upon, among other factors, the overall profitability of Merrill Lynch, including profits derived from investment banking revenues.

OPINION KEY: Opinions include a Volatility Risk Rating, Intermediate-Term and Long-Term Investment Ratings and an Income Rating, VOLATILITY RISK RATINGS, indicators of potential price fluctuation, are: A - Low, B - Average, C - Above Average, D - High, INTERMEDIATÉ-TERM INVESTMENT RATINGS, indicators of expected total return (price appreciation plus yield) within the 12-month period from the date of the initial rating, are: 1 - Strong Buy (minimum 20% - more for High Risk securities); 2 - Buy (minimum 10%); 3 - Neutral (0-10%); 4 - Reduce/Sell (negative return); 6 - No Rating. LONG-TERM INVESTMENT RATINGS, indicators of fundamental company factors demonstrating potential total return for the 3-year period from the date of the initial rating, are: 1 - Strong Buy (aggregate minimum 40%); 2 - Buy (aggregate minimum 20%); 3 - Neutral (aggregate 0-20%); 4 - Reduce/Sell (negative return); 6 - No Rating. INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure); 8 - same/hover (dividend not considered to be secure); 8 - same/hover (dividend not considered to be secure); 8 - same/hover (dividend not considered to be secure); 8 - same/hover (dividend not considered to be secure); 8 - same/hover (dividend not considered to be secure); 8 - same/hover (dividend not considered to be secure); 8 - same/hover (dividend not considered to be secure); 8 - same/hover (dividend not considered to be secure); 8 - same/hover (dividend not considered to be secure); 9 - same/

Comment

United States Telecom Services-Wireline

Qwest Communications International Inc.

Generates Cash But Normalized Revenues and EBITDA Sharply Lower

REDUCE/SELL*

Reason for Report: 2Q Earnings Review

Long Term REDUCE/SELL

9 August 2002

Adam Quinton (1) 212 449-5631 adam_quinton@ml.com James Moynihan, CFA (1) 212 449-9308 Victoria Pease (1) 212 449-6379 Jennifer Leonard (1) 212 449-8161

Price:

\$1.20

| Estimates (Dec) | 2001A | 2002E | 2003E |
|---|---------|---------|---------|
| EPS(GAAP): | n/a | d\$1.42 | d\$0.50 |
| P/E (GAAP): | n/a | NM | NM |
| EPS (Normalized): | n/a | d\$0.50 | d\$0.50 |
| P/E (Normalized): | n/a | NM | NM |
| EPS Change (YoY): | | NM | NM |
| Consensus EPS: (First Call: 31-Jul-2002) | | d\$0.23 | d\$0.08 |
| Q3 EPS (Sept.): | d\$0.08 | d\$0.15 | |
| Cash Flow/Share: | n/a | \$2,35 | \$2,45 |
| Price/Cash Flow: | n/a | 0.5x | 0.5x |
| Dividend Rate: | Nil | Nil | Nil |
| Dividend Yield: | Nil | Nil | Nil |

Opinion & Financial Data

Investment Opinion: D-4-4-9 Volatility Risk: High Mkt. Value / Shares Outstanding (mn): \$2,000.4 / 1,672 Book Value/Share (Jun-2002): \$20.87

Price/Book Ratio: 0.6 ROE 2002E Average: n/a LT Liability % of Capital: 33.3%

Stock Data

52-Week Range: \$26.08-\$1.07 Symbol / Exchange: O / NYSE Options: AMEX Institutional Ownership-Vickers: 54 8% Brokers Covering (First Call):

ML Industry Weightings & Ratings**

Strategy; Weighting Rel. to Mkt.:

Income: In Line (18-Jun-2001) Growth: In Line (18-Jun-2001) Income & Growth: Overweight (25-Oct-2000) Market Analysis; Technical Rating: Below Average (26-Jul-2000)

Investors should assume that Merrill Lynch is seeking or will seek investment banking or other business relationships with the companies in this report.

Refer to important disclosures at the end of this report.

Merrill Lynch Global Securities Research & Economics Group Global Fundamental Equity Research Department

Highlights:

- On August 8th, Qwest reported 2O results. Normalized EPS for the quarter were d\$0.13, 62.5% lower than our estimate of d\$0.08, and 117% beneath consensus of d\$0.06. Normalized EPS for 2Q 2001 were \$0.08. 2Q GAAP EPS were d\$0.68, compared to d\$1.99 a year ago.
- On July 29th, management announced that a series of accounting errors has been made over 3 years and that restatements would be forthcoming. As a result, we have recorded 2001 data as "n/a" on page 1 of this report.
- Qwest remained in compliance with its bank credit facility and its financial covenants as of June 30th. Based on 2O EBITDA we now estimate that LTM EBITDA as of 3Q will be around \$5.6B ... indicating that Qwest is now near certain to breach its 3Q 4.25x debt/EBITDA covenant. As a result the company is in discussions with Bank of America to restructure its syndicated credit facility by extending its maturity and modifying its covenants. Bank of America is also acting as sole book runner to arrange a \$500MM credit facility at DEX.
- The SEC and criminal investigations continue. Management gave no new information on the status of these two overhang issues.
- We reiterate our Reduce/Sell rating on Qwest.

Stock Performance



RC#20122153

^{*}Intermediate term opinion last changed on 28-Jun-2002.

^{**}The views expressed are those of the macro department and do not necessarily coincide with those of the Fundamental analyst.



2Q Earnings Summary

On August 8th Qwest reported 2Q results. Normalized EPS for the quarter were d\$0.13, 62.5% lower than our estimate of d\$0.08, and 117% beneath consensus of d\$0.06. Normalized EPS for 2Q 2001 were \$0.08. 2Q GAAP EPS were d\$0.68, compared to d\$1.99 a year ago. Reported EPS includes \$0.55 of non-recurring items (totaling \$926MM) due to write downs associated with the company's remaining investment in KPNQwest (\$740MM), increased bad debt reserves associated with WorldCom's bankruptcy (\$119MM), and asset impairments on real estate held for sale (\$59MM). See Table 1:

Table 1: Reconciliation between Reported GAAP and Normalized EPS, 2Q 2002

| Reported EPS | d\$0.68 |
|--|---------|
| Write downs associated w/ KPNQwest | 0.44 |
| Bad debt reserves for WorldCom's bankruptcy | 0.07 |
| Asset impairments on real estate held for sale | 0.04 |
| Normalized EPS | d\$0.13 |

Source: Company Reports

2Q reported revenues were \$4.3B, 3.4% lower than our \$4.5B est. and down 17.3% YoY. The decline was due largely to a 41.4% YoY drop in wholesale revenues to \$1.7B (NB optical capacity/equipment sales), as well as declines in each of the business, consumer, and network segments. 2002 2Q recurring revenue was equal to reported revenue and was down 6% YoY.

Recurring business services revenues fell 6.4% YoY to \$1.6B, exceeding our \$1.5B estimate marginally (0.4%). This decline drops to 2.4% if optical capacity and certain IP equipment sales are excluded. Recurring revenues from local and LD voice services fell about 8% YoY, or \$231MM. This decline was only partly offset by growth in data and Internet revenues of 8%.

Consumer services revenues declined 4.8% YoY to \$1.4B, 2% below our estimate. The penetration level of bundled services among customers rose to 37% of all customers, a 24% YoY rise.

Wholesale revenues were \$995MM down 41.4% and thus nearly 10% below our estimate. This reflected that, even after stripping out optical capacity and equipment sales from the prior year number, underlying wholesale revenues still declined 12% due to reduced demand for a several services in this category (inc. switched traffic, in region co-location facilities, billing and collection)

Adjusted EBITDA in 2Q fell 37.9% YoY to \$1.3B. This was 14.5% below our estimate of \$1.5B. The 2Q EBITDA margin was 29.2%; our estimate was for 33.0%, 380 bps above the actual result. CoGS fell 11% YoY to \$1.65B but SG&A rose 5.1% to \$1.4B (and was up 5.3% QoQ ... amongst other things management commented on "unexpected expenses recognized within the quarter for increased litigation risk'.)

Capex was\$618MM down sharply from \$2.6B in the year ago period and also well down on the \$1.2B spend in 1Q 2002. (Although 1Q reflected \$254MM from the retirement of synthetic leases.) 2Q capex to sales equated to just 14.3%.

Net debt was \$24.8B, down from \$25.2B at end 1Q. However while gross cash is still reported at \$1.4B \$750MM of this is now reported as "restricted" cash. We understand that this is being held in escrow against debt repayments falling due in 3Q. This was set up as part of a bank facility signed earlier this year to fund the \$800MM in debt principal that Qwest has coming due in 3Q. Similarly, management anticipates having a \$200MM restricted cash balance at the end 3Q 2002. Debt due within 12 months rose to \$5.9B from \$5.1B at end 1Q.

| Table 2: 2Q Earnings Variance | | | |
|-------------------------------|---------------|--------|--------------|
| (SMM) | 2Q02E | 2Q02A | % Change YoY |
| Business | 1,545 | 1,551 | 0.4% |
| Consumer | 1,439 | 1,413 | -1.8% |
| Wholesale | 1,104 | 995 | -9.9% |
| Directory | 358 | 345 | -3.7% |
| Network and Other | 20 | 15 | -26.5% |
| Revenue | 4,468 | 4,319 | -3.3% |
| Cost of Sales | 1,608 | 1,647 | 2.4% |
| SG&A | 1,385 | 1,412 | 1.9% |
| Depreciation | 1,125 | 1,075 | -4.4% |
| Goodwill and Other | 85 | 85 | 0.0% |
| Operating Expenses | 4,203 | 4,219 | 0.4% |
| EBITDA | 1,474 | 1,260 | -14.5% |
| Operating Income | 264 | 100 | -62.2% |
| Interest Expense - net | 450 | 455 | 1.1% |
| Other Expense - net | 50 | 38 | -24.0% |
| EBIT | (236) | (393) | 66.8% |
| Taxes | (94) | (183) | 94.2% |
| Net (Loss) Income | (141) | (210) | 48.5% |
| EP\$ | (0.08) | (0.13) | 47.6% |
| Diluted Shs Outstanding | <u>1,6</u> 67 | 1,678 | 0.7% |

Source: Company Reports and Merrill Lynch estimates

The Key RBOC Operating Themes

Throughout this reporting season we have identified several key challenges facing the RBOCs growth ambitions. Whilst it is impossible to be able to compare Classic USWest with its peers given Qwest reporting lines, it is clear that they too are suffering the same pressures which we note are;

Soft enterprise demand as IT spending remains constrained and adversely impacts data growth plus the business access line count as companies downsize. Verizon Communications mentioned that in the general small/medium business segment revenue was declining "moderately" with a worse affect on the larger enterprise segment worse affected. In Qwest's



- case recurring business services revenues (including relevant parts of Classic USWest and the former growth engine Classic Qwest) declined 2.4% on a recurring basis.
- Retail line loss to facilities and non-facilities based telcos (increasingly just via those large CLECs AT&T and WorldCom) both in the business market and via UNE-P based local/LD bundles in residential. As we discuss below, UNE-P based revenue compression in the consumer market was a significant factor for SBC and BellSouth in 2Q - less so Qwest and Verizon Communications. Verizon Communications has not experienced the same growth in wholesale as its three RBOC peers in recent periods (although it has still seen an adverse impact from UNE-P rate declines. Over the past year, according to data provided by the National Regulatory Research Institute (NRRI), UNE-P rates have been lowered on average by 24.3% in New York and 42.4% in New Jersey - and by 7.8% on a weighted average basis for the nation as a whole.) Wholesale lines for Verizon Communications grew by 0.5% QoQ and actually declined by 0.8% YoY at the 2Q stage, while at BellSouth wholesale lines grew by 10.7% QoQ and 47.1% YoY and at SBC wholesale lines grew by 14.9% QoQ and 41.1% YoY. Owest saw total wholesale lines increase at a somewhat slower (but still material) 33% rate YoY. However within that (and in contrast to its peers) UNE-P lines at Owest rose 13.5% with a much bigger gain being seen in straight unbundled loops - up 72%. Wholesale lines now represent 3.5% of Qwest's total access lines ... so much lower that all of Verizon Communications (6.1%), SBC (7.6%) lines and BellSouth (6.6%).
- Revenue leakage as resold lines which are already "lost" to competitors move to UNE-P. This was a particular problem at BellSouth in 2Q. Total BellSouth wholesale line rose 9% YoY but within that UNE-P rose 190% going from 26% of the total to 68%. As noted above, Verizon Communications saw revenue compression based on UNE-P thanks to rate cuts but not this swing effect ... it has seen UNE-P lines at more than 50% of total resale/UNE-P lines since as far back as 2Q 2001. For Owest UNE-P lines are 56% of its total wholesale lines - actually down from 66% a year ago! We will be looking at the UNE-P issue in coming weeks to assess the vulnerability of the RBOCs to this threat, the issue having gained more promised after AT&T's (hardly surprising) announcement that it would enter the California market following a favorable (to them!) decision on UNE-P rates there.
- Cable telephony substitution for wireline (largely through AT&T Broadband and Cox on a country wide basis). SBC's exposure to major AT&T clusters (notably in Chicago and California) has put it at the forefront of this battle – it touches all of the RBOCs to some degree however.

- Broadband substitution (both DSL/cable modem) for second lines. Qwest reported residential second lines at end 2Q down 6.3% to 1.70MM. BellSouth reported their residential second line count of 2.1MM was down 10.6% YoY in 2Q. For SBC secondary residential lines totaled 6.25MM at the end of the period and were down 8.7% YoY and 3.8% QoQ, indicative of similar pressures. (Verizon Communications did not provided equivalent disclosure.)
- Direct wireless for wireline substitution we suspect a marginal but growing impact on the access line count. In the past SBC has referenced some of its own analysis which has identified a surprisingly high percentage of units in new MDUs without a landline phone. In our work on wireless pricing in the US with our colleague Linda Mutschler, we have draw attention to the impact of substitution and also the fact that price points in wireless make basic access line substitution viable (where, unlike this analyst, you have acceptable wireless coverage!). In our view wireless pricing continues to move in a direction that promotes growing substitution – please see Linda's report dated July 31st ("What Are They Thinking?") on the latest moves in US wireless pricing arena. In that report she highlights how recent plans have shifted to adding more to the "anytime" bucket. (e.g., new Voicestream plans in California and Nevada with 1,000 anytime minutes for \$39.99/mo plus unlimited weekends and long distance.)
- Loss of access MOUs and thus access revenues as LD traffic migrates to wireless. We also recently addressed this in a note with our colleague Linda Mutschler. For 2Q Qwest's MoU (traffic from other carriers and CLECs that is) declined at the highest rate of the four RBOCs at 11.3% YoY. In comparison, Verizon Communications' fell 7.4% and BellSouth's by 10.4%. SBC reports access MoU inclusive of wireless ... but still saw a 5.2% YoY decline in 2Q. In SBC's case however MoU were up 3.3% QoQ.

Accounting Update

On July 29th, management announced that a series of accounting errors had been made over a three-year period and that restatements would be forthcoming. Note that due to these pending large and uncertain restatements, we have recorded 2001 data as "NA" on page 1 of this report.

Given the restatements, in its 2Q release Qwest reiterated that it will not be able to file its 2Q 10-Q on schedule. It expects to provide more detailed financial disclosure (via an 8-K) on the quarter by August 19th.

By way of reminder the accounting situation at Qwest situation can be summarized as follows:



New management at Qwest, and recently appointed auditors KPMG (prior auditors being Andersen), are reviewing accounting policies and practices at the company in the light of the ongoing SEC and criminal investigations.

Qwest announced on July 29th, in an update on its own internal review, that it concluded it had applied accounting policies incorrectly with respect to revenue recognition and accounting treatment of \$1.16B of optical capacity transactions in 1999 – 2001. Further adjustments, in addition to the \$73MM revenue reduction recorded, in 4Q 2001 will also be required for equipment sales, the company stated. The perperiod magnitude of the adjustments has yet to be finalized, and the company could not say when a restatement would be completed.

Accounting for costs associated with services received from third-party telecom providers during 2000 and 2001 is also being investigated; Qwest has preliminarily estimated that these were overstated by \$15MM in 2000 and understated by \$113MM in 2001.

The production schedules and lives of <u>certain practices</u> within Owest's DEX business are also being reviewed.

What was new in that July 29th update? Well, Qwest's optical capacity sales have been under scrutiny since 3Q last year and the company has provided detailed disclosure in this area. The company has also already provided disclosure on equipment sales. That said we asked management on its conference call after the July 29th announcement whom the three equipment contracts they referenced in their release were with - we assume two were with KMC and Calpoint but they would not confirm this. In addition, we noted in a report on these accounting issues dated July 30th that were surprised to see the mention of a third questionable equipment contract - although it seems one not connected to a related service agreement. Again, management would not disclose whom this contract was with. The DEX publication issue has received some media publicity although we believe that the numbers here are not very materially. Finally, the understatement in 2001 (over statement in 2000) of expenses was a new item. Our read from management's comments on their call was that the \$113MM of expenses not booked in 2001 were the result more of omission rather than fraud. The 3rd party services secured (they would not disclose from whom) had been paid for and the implication was that the book keeping process had simply failed to follow through and capture them appropriately in COGS.

Finally in the accounting area the company has yet to report any FAS 142 goodwill write downs and indicated that in addition "certain network assets" are impaired and additional write downs under FAS 144 will be required. They had previously indicated (most recently in the 1Q 10Q) that goodwill write downs could amount to \$20B - \$30B. On the 2Q balance sheet goodwill and other intangibles of \$34.5B roughly matched end-2Q

shareholders equity of \$35.0B (net PP&E was \$29.8B). Thus a goodwill write off at the upper end of the prior range, plus additional asset write downs, could leave book equity close to wiped out.

2Q Results by Service

In this section we provide more specific detail of 2Q results by line of business:

Local and Long Distance Service

Overall recurring local and LD voice revenues fell 8% YoY. Long distance revenues within the business segment declined 3.1% YoY to \$219MM, while long distance consumer segment revenues dropped 39.6% to \$99MM over the same period. Wholesale long distance revenues decreased 3.3% to \$236MM YoY.

Local revenues declined 9.2% YoY to \$689MM in the business services segment and 1.1% YoY to \$1.1B in the consumer segment. Wholesale local service revenues decreased 16.2% YoY to \$372MM.

As we have already noted network metrics were weak – access lines fell 3.8% to 17.35MM – business lines fell 2.4% to 6.11MM and residential lines fell 4.6% to 11.25MM. (Within that total second lines declined 6.3% but primary lines were down sharply with a 4.0% decline.)

Table 3 details access line growth at the RBOCs both on a sequential and an annual basis. YoY, **Qwest tied SBC for the greatest percentage line loss, at 3.8%.** Although Verizon Communications showed the largest QoQ decline at 1.9%, Qwest followed with a 1.4% fall. If one looks at access line losses year-to-date, Qwest has the most significant decrease of 2.4%, followed by SBC at 2.1%. Access line losses reflect the weak economy especially redundancies impacting the business segment, second line losses impacting the consumer sector and losses to other facilities based providers, specifically cable in the consumer space.

Table 3: RBOC Access Line Growth

| | 2Q01 | 3Q01 | 4001 | 1Q02 | 2Q02E |
|------------------------|--------|--------|--------|--------|--------|
| Access Lines (K) | | | | | -40 |
| BellSouth | 25,666 | 25,574 | 25,422 | 25,425 | 25,138 |
| SBC | 60,577 | 60.230 | 59,532 | 59.036 | 58.255 |
| Verizon Communications | 62,465 | 61,967 | 61,551 | 61,551 | 60.373 |
| Qwest | 18,040 | 17.961 | 17,787 | 17.606 | 17.353 |
| QoQ Growth | | | , | 17,000 | 17,505 |
| BellSouth | -0.9% | -0.4% | -0.6% | 0.0% | -1.1% |
| SBC | -1.1% | -0.6% | -1.2% | -0.8% | -1.3% |
| Verizon Communications | -0.7% | -0.8% | -0.7% | 0.0% | -1.9% |
| Qwest | -0.7% | -0.4% | -1.0% | -1.0% | -1.4% |
| YoY Growth | | | | 11070 | 1.170 |
| BellSouth | -0.8% | -1.4% | -1.9% | -1.8% | -2.1% |
| SBC | -1.1% | -1.7% | -2.8% | -3.6% | -3.8% |
| Verizon Communications | -0.4% | -1.4% | -2.1% | -2.1% | -3.3% |
| Qwest | n/a | n/a | -1.9% | -3.1% | -3.8% |

Source: Company Reports



Table 4 illustrates our previous observations that Qwest's Carrier/CLEC Minute of Use fell at the fastest rate amongst the RBOCs (the next largest was BellSouth's 10.4%). This trend of lower access MoUs and hence access revenues has intensified across the ILECs as LD traffic migrates to wireless compounding the impact of line losses.

Table 4: RBOC Minutes of Use Growth 2Q01 3Q01 4Q01 1Q02 2Q02E MOUs (MM) BellSouth 27,986 26,922 26,768 25,583 25,073 SBC 72.738 70.789 69,637 66,733 68,943 Verizon Communications 71,883 70.778 70,629 67,110 66,552 Qwest 17,827 n/a n/a n/a 15,809 QoQ Growth BellSouth 0.2% -1.8% -4.4% -0.6% -2.0% SBC 3.9% -2.7% -1.6% -4 2% 3.3% Verizon Communications -0.9% -1.5% -0.2% -5.0% -0.8% Qwest n/a n/a n/a n/a n/a **YoY Growth** BellSouth -2.8% -5.7% -3.9% -8 4% -10.4% SBC 2.9% 0.0% -1.4% -4.7% -5.2% Verizon Communications -0.2%-2.2% -2.7% -7.5% -7.4% Qwest n/a n/a n/a n/a -11.3%

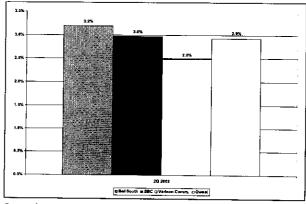
Source: Company Reports

■ Data Revenues and DSL

Recurring data and Internet revenues fell a total of 2.5% YoY to \$1.0B. Recurring data and IP revenues in the business segment rose 8.0% to \$607MM, while these dropped 5.9% to \$48MM in the consumer segment and 15.5% in the wholesale segment to \$354MM (note that this excludes \$361MM of optical capacity sales and \$205MM of IP equipment sales in 2Q 2001).

DSL customers rose 37% YoY and 5% QoQ to 508K. Adds for the quarter were 24K, a 33.3% sequential decline from 36K adds in 1Q 2002. Chart 1 depicts DSL subscriber penetration per access line ... note that Verizon Communications is the lowest, at 2.5%, while Qwest follows, at 2.9%.

Chart 1: DSL Subscribers as % of Total Access Lines



Source: Company Reports

■ Wireless

Wireless subs were essentially flat QoQ (up 11.5% YoY) at 1.12MM but ARPU fell to \$48 from \$52 a year ago and \$51 in the prior quarter. Thus wireless revenues were up 3.9% YoY but down 3.1% QoQ.

Credit Facilities and Covenants

Qwest remained in compliance with its bank credit facility and its financial covenants as of June 30th. However, the company is in discussions with Bank of America to restructure its syndicated credit facility by extending its maturity and modifying its covenants. Bank of America is also acting as sole book runner to arrange a \$500MM credit facility at DEX.

Based on 2Q EBITDA we now estimate that LTM EBITDA as of 3Q will be around \$5.6B ... indicating that Qwest is now near certain to breach its 3Q 4.25x debt/EBITDA covenant, as illustrated in Table 5. Hence the proactive move already noted whereby management is seeking to restructure its credit facility. The company indicated that BoA (as facility agent) will approach lenders "within the next week".

Table 5: Debt/EBITDA Covenant Ratios

| (SMM) | 3Q 2001 | 4Q 2001 | 1Q 2002 | 2Q 2002 | LTM |
|----------|---------|---------|---------|---------|--------|
| Net Debt | | | | | 24,815 |
| EBITDA | 1,765 | 1,562 | 1,454 | 1,260 | 6,041 |
| Ratio | | | | | 4.11 |
| | 4Q 2001 | 1Q 2002 | 2Q 2002 | 3Q 2002 | LTM |
| Net Debt | | | | | 24,815 |
| EBITDA | 1,562 | 1,454 | 1,260 | 1293 | 5,569 |
| Ratio | | | | | 4.46 |

Source: Company Reports and Merrill Lynch estimates

The Twin Investigations

The SEC and criminal investigations continue.

Management gave no new information on the status of these two overhang issues.

Management's Estimate Updates

Management issued new estimates for 2002; their estimate changes compare with their prior projections as follows:

Revenues New \$17.1-17.4B vs. Old \$18.0-18.4B; EBITDA new \$5.4-5.6B vs. Old \$6.4.6.6B; capex New \$3.0-3.1B vs. Old \$3.1-3.3B.

On a mid point basis the new ests imply 2002 capex/sales of 17.7% - this is now the same or higher than our expectations for the much less financially stressed pure RBOCs on the same basis.



Note that these ests include the Dex directories business for all 2002. Management noted that: "The company is in late stage negotiations with bidders to sell all or part of OwestDex."

Merrill Lynch's Estimate Updates

Following Qwest's 2Q earnings announcement, we have adjusted our estimates for 2002 and 2003:

- Our revenue estimate for 2002 falls 2.6% from \$17.9B to \$17.4B, while our 2003 estimate falls from \$17.9B to \$17.5B, a 2.6% difference.
- We have lowered our 2002 normalized EBITDA estimate from \$5.9B to \$5.3B, a 9.8% decrease, and lowered our 2003 estimate from \$6.1B to \$5.4B, a 11.2% decrease.
- Our normalized diluted EPS number declines from d\$0.33 to d\$0.50 for 2002, a 51.5% drop.
 Similarly, our 2003 normalized EPS estimate falls from d\$0.25 to d\$0.50, a 100.0% change.
- We have maintained our 2002 capex estimate of \$3.1B. We lowered our 2003 estimate by 2.6% from \$3.14B to \$3.06B in 2003 although we suspect that this level could be driven (much?) lower as financial pressures continue.

Investment Summary

Given the number of adverse factors impacting Qwest we reiterate our Reduce/Sell rating on the stock.

Looked at simplistically on current 2002 run rate EBITDA (\$5.04 on LQA basis or %5.3B for 2002 on our est.), applying an EV/E multiple say 10% discounted below the RBOC average of 5.0x (to reflect the lack of a substantial nationwide wireless business) produces an EV below current net debt – so no equity value. However we note that Qwest has an over stretched balance sheet, weak core telco operating metrics and has yet to resolve the SEC/DoJ investigations. Thus, and given the lack of E in a P/E calculation or dividend to provide yield support, whatever multiple is merited a steeper discount to RBOC multiple could arguably make sense.

| Table 6: Summary FCF | | | |
|----------------------|---------|---------|---------|
| (\$MM) | 2001 | 2002E | 2003E |
| EBITDA | 7,353 | 5,338 | 5,414 |
| less Capex | (8,543) | (3,100) | (3,057) |
| less Interest | (1,298) | (1,800) | (1,800) |
| less Taxes | 574 | 0 | 0 |
| less Dividend | (83) | 0 | 0 |
| +- Other | (3,849) | (500) | (500) |
| FCF | (5,847) | (62) | 58 |

Source: Company Reports and Merrill Lynch estimates

| Table 7: Summary P&L | | | |
|----------------------------|--------|---------|---------|
| (\$MM) | 2001 | 2002E | 2003E |
| Business | 6,497 | 6,154 | 6,154 |
| Consumer | 6,074 | 5,673 | 5,673 |
| Wholesale | 5,452 | 3,933 | 3,933 |
| Directory | 1,604 | 1,609 | 1,641 |
| Network and Other | 68 | 65 | 65 |
| Revenue | 19,695 | 17,434 | 17,466 |
| Cost of Sales | 7,111 | 6,545 | 6,637 |
| SG&A | 5,231 | 5,551 | 5,414 |
| Depreciation | 3,772 | 4,430 | 4,600 |
| Goodwill and Other | 1,341 | 340 | 340 |
| Operating Expenses | 17,455 | 16,866 | 16,991 |
| EBITDA | 7,353 | 5,338 | 5,414 |
| Operating Income | 2,240 | 568 | 474 |
| Interest Expense - net | 1,442 | 1,800 | 1,800 |
| Other Expense - net | 90 | 135 | 0 |
| Income (Loss) Before Taxes | 708 | (1,367) | (1,326) |
| Taxes | 653 | (529) | (490) |
| Net (Loss) Income | 55 | (838) | (835) |
| EPS | 0.03 | (0.50) | (0.50) |
| Diluted Shares Outstanding | 1,671 | 1,675 | 1,678 |

Source: Company Reports and Merrill Lynch estimates



| Intermediate-Term Ratings Distributio | n: Telecommunication | ns Group (as of 05 Ju | rly 2002) | | |
|---------------------------------------|------------------------|-----------------------|-----------------------------|-------|---------|
| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
| Strong Buy | 17 | 9.88% | Strong Buy | 7 | 11.11% |
| Buy | 44 | 25.58% | Buy | 17 | 26.98% |
| Neutral | 77 | 44.77% | Neutral | 26 | 41.27% |
| Reduce/Sell | 34 | 19.77% | Reduce/Sell | 13 | 20.63% |
| Intermediate-Term Ratings Distributio | n: Global Group (as of | 05 July 2002) | | | |
| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
| Strong Buy | 521 | 17.82% | Strong Buy | 228 | 25.94% |
| Buy | 1048 | 35.84% | Buy | 339 | 38.57% |
| Neutral | 1163 | 39.77% | Neutral | 267 | 30.38% |
| Reduce/Sell | 193 | 6.60% | Reduce/Sell | 45 | 5.12% |

^{*} Companies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months.

[SBC, VZ] MLPF&S or an affiliate was a manager of a public offering of securities of this company within the last 12 months.

[VZ] MLPF&S was a manager of the most recent public offering of securities of this company within the last three years.

[SBC, VZ] MLPF&S or an affiliate has received compensation for investment banking services from this company within the past 12 months.

[SBC, BLS, VZ, Q] MLPF&S or an affiliate expects to receive or intends to seek compensation for investment banking services from this company within the

In Germany, this report should be read as though Merrill Lynch has acted as a member of a consortium which has underwritten the most recent offering of securities during the last five years for companies covered in this report and holds 1% or more of the share capital of such companies.

The analyst(s) responsible for covering the securities in this report receive compensation based upon, among other factors, the overall profitability of Merrill Lynch, including profits derived from investment banking revenues.

OPINION KEY: Opinions include a Volatility Risk Rating, Intermediate-Term and Long-Term Investment Ratings and an Income Rating. VOLATILITY RISK RATINGS, indicators of potential price fluctuation, are: A - Low, B - Average, C - Above Average, D - High. INTERMEDIATE-TERM INVESTMENT RATINGS, indicators of expected total return (price appreciation plus yield) within the 12-month period from the date of the initial rating, are: 1 - Strong Buy (minimum 20% - more for High Risk securities); 2 - Buy (minimum 10%); 3 - Neutral (long-german 10%); 4 - Reduce/Sell (negative return); 6 - No Rating, INCOME RINKENT RATINGS, indicators of fundamental company factors demonstrating potential total return for the 3-year period from the date of the initial rating, are: 1 - Strong Buy (aggregate minimum 40%); 2 - Buy (aggregate minimum 40%); 2 - Buy (aggregate minimum 40%); 2 - Buy (aggregate minimum 40%); 3 - Neutral (aggregate 0-20%); 4 - Reduce/Sell (negative return); 6 - No Rating, INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure); 8 - same/lower (dividend considered to be secure); 9 - same/lower (dividend considered to be secure); 8 - same/lower (dividend considered to be secure); 9 - same/lower (dividend considered to be secure); 8 - same/lower (dividend considered to be secure); 8 - same/lower (dividend o



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24 July 2002

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SBC Communications Inc.

Another Tough RBOC Quarter. Another Set of Estimate Cuts

NEUTRAL*

Reason for Report: 20 Earnings Review

Long Term NEUTRAL

| Price: | \$23.30 | | |
|---------------------------|---------|--------|--------|
| Estimates (Dec) | 2001A | 2002E | 2003E |
| EPS (Pro Forma): | \$2.35 | \$2.34 | \$2.39 |
| P/E: (Pro Forma) | 9.9x | 10.0x | 9.7x |
| EPS (GAAP) | \$2.07 | \$1.75 | \$2.39 |
| P/E (GAAP): | 11.3x | 13.3x | 9.7x |
| EPS Change (YoY): | | -0.4% | 2.1% |
| Consensus EPS: | | \$2.36 | \$2.43 |
| (First Call: 22-Jul-2002) | | | |
| EBITDA (\$B) | \$22.3 | \$21.9 | \$22.1 |
| EV/EBITDA | 4.8x | 4.8x | 4.8x |
| Q3 EPS (Sept): | \$0.61 | \$0.59 | |
| Cash Flow/Share: | \$5.25 | \$5.29 | \$5.38 |
| Price/Cash Flow: | 4.4x | 4.4x | 4.3x |
| Dividend Rate: | \$1.03 | \$1.08 | \$1.08 |
| Dividend Yield: | 4.3% | 4.6% | 4.6% |
| Opinion & Financial Data | | | |

| Investment Opinion: | B-3-3-7 |
|---------------------------------------|--------------------|
| Volatility Risk: | Avcrage |
| Mkt. Value / Shares Outstanding (mn): | \$77,658.9 / 3,333 |
| Book Value/Share (Jun-2002): | \$9.52 |
| Price/Book Ratio: | 2.4x |
| ROE 2002E Average: | 17.5% |
| LT Liability % of Capital: | 37.2% |
| Est. 5 Year EPS Growth: | 4.5% |
| ROTC 2002E: | 17.6x |
| Cash Realization Ratio 2002E: | 54.7% |
| Next 5 Year Dividend Growth: | 0.0% |

Stock Data

52-Week Range: \$47.50-\$22.80 Symbol / Exchange: SBC / NYSE Options: Pacific Institutional Ownership-Vickers: 46.0% Brokers Covering (First Call): 23

ML Industry Weightings & Ratings**

| Strategy; Weighting Rel. to Mkt.: | | |
|------------------------------------|---------------|---------------|
| Income: | Overweight | (25-Oct-2000) |
| Growth: | In Line | (25-Oct-2000) |
| Income & Growth: | Overweight | (25-Oct-2000) |
| Market Analysis; Technical Rating: | Below Average | (13-Feb-2002) |

^{*}Intermediate term opinion last changed on 12-Apr-2002.

Investors should assume that Merrill Lynch is seeking or will seek investment banking or other business relationships with the companies in this report.

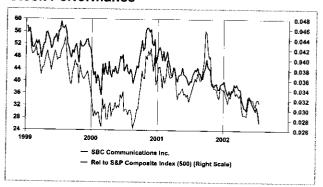
Refer to important disclosures at the end of this report.

Merrill Lynch Global Securities Research & Economics Group Global Fundamental Equity Research Department

Highlights:

- On July 23rd, SBC announced earnings for the second quarter. 2Q Normalized diluted EPS as stated by the company were \$0.61, flat YoY. This exceeded our (and consensus') \$0.60 estimate by 1.7%. However the prior year EPS figure carried \$0.03 of goodwill expense no longer required under FAS 142 i.e. underlying normalized EPS were down 4.7%.
- Diluted GAAP EPS were \$0.55, down 9.8%
 YoY from \$0.61 in 2Q 2001.
- We have lowered our 2002 revenue estimate 1.8% from \$53.4B to \$52.4B, our EBITDA estimate 2.6% from \$22.4B to \$22.1B, and our EPS estimate 2.5% from \$2.40 to \$2.34.
- If SBC's stock buybacks are considered (approx. \$2B), the total notional annual cash return yield on SBC equity is 7.0%. Thus SBC's notional cash return yield falls just short of the comparable yield on AA-rated corporates of approx. 7.1% (the 30-year treasury plus 180 basis points). This suggests that SBC stock should have limited downside around current levels i.e. even if SBC shows only very limited growth going forward, the cash flow returned to shareholders is in line with that available from its debt securities (which do not "grow" at all.).

Stock Performance



^{**}The views expressed are those of the macro department and do not necessarily coincide with those of the Fundamental analyst.



2Q Earnings Summary

On July 23rd, SBC announced earnings for the second quarter. 2Q Normalized diluted EPS as stated by the company were \$0.61 and thus flat YoY. This exceeded our (and consensus') \$0.60 estimate by 1.7%.

The prior year EPS figure carried \$0.03 of goodwill expense no longer required under FAS 142. Thus on an apples for apples basis underlying normalized EPS were actually down 4.7%.

Diluted GAAP EPS were \$0.55, down 9.8% YoY from \$0.61 in 2Q 2001.

The difference between GAAP EPS and the company's normalized EPS was due largely to \$0.07/share of work force reduction charges, a gain of \$0.04/share on the BCE sale, and additional reserves related to WorldCom totaling \$0.03/share. Note that when reporting on July 22nd, BellSouth indicated its EPS were adversely impacted by incremental bad debt of \$0.05/share – including a contribution from WorldCom related receivables. However, BellSouth did not take this higher bad debt out of its normalized EPS presentation. BellSouth's approach is thus, consistent with its generally conservative approach to financial reporting.

That said given the investor and media concern over the abuse of normalized and pro forma earnings we plan to pay more attention to GAAP numbers going forward. Note that in the case of SBC's 2Q whilst the one time asset sale taken out of normalized EPS does not reflect the operating performance of the company both the bad debt and restructuring items do. Bad debt is a normal expense in the day to day course of business and the force reduction is a frequently recurring issue within the industry and thus also a de facto "normal" business expense at SBC.

| Table 1: SBC EPS Reconciliation | |
|---------------------------------|--|
| Reported EPS | |

| | 2442 |
|-------------------------------|--------|
| Reported EPS | 0.55 |
| Work force reduction charges | 0.07 |
| Additional WorldCorn reserves | 0.03 |
| Gain on BCE transaction | (0.04) |
| Normalized EPS | 0.61 |

Source: Company reports

Normalized 2Q revenue was \$13.1B, 2.3% lower than our estimate of \$13.4B. A 7.6% fall in voice revenue to \$6.3B and an 11.5% decrease in long distance voice revenue led the decline with a marked uptick in UNE-P based resale having an adverse impact. This is similar to the phenomenon reported by BellSouth for 2Q (although in its case, the revenue hit came from pre-existing resold lines switching over to UNE-P.) Wireless and data revenue growth both slowed – to +5.9% and +0.2%, respectively. Directories were also a positive (+12.7%) due to a shift in publication dates.

Note that SBC reports revenues on a normalized basis not consistent with GAAP – reflecting 60% of its proportionate interest in Cingular even though it does not have control. Reported SBC revenues for 2Q02 show no wireless subscriber revenue. On a reported basis, revenues were \$10.8B and declined 5.5% YoY.

Normalized EBITDA declined 3.6% to \$5.5B, which was 2.5% lower than our \$5.7B estimate. EBITDA margins for the quarter were 41.9%, down 385 bps YoY from 45.8%. (Note that normalized EBITDA too reflect a proportionate contribution from Cingular. Reported EBITDA, which excludes Cingular and includes the "one item" items discussed previously, was \$4.4B - down 16.0% YoY.)

Note that on Monday 21st July we changed our longterm opinions on all of SBC, BellSouth, and Verizon Communications from Buy to Neutral following disappointing results at BellSouth. We felt the BellSouth results were a harbinger of similar developments at the other RBOCs and they pointed to sustained adverse secular trends that would restrain growth at all the RBOCs to very modest levels going forward ... SBC's results did nothing to suggest this view was misplaced. In our report on BellSouth, we identified the key challenges facing the RBOCs growth ambitions as being:

- Soft enterprise demand as IT spending remains constrained and adversely impacts data growth plus the access line count as companies downsize – true for SBC with its exposure to ISPs being referenced by management on several occasions as an added issue.
- Retail line loss to facilities and non facilities based telcos (increasingly just via those large CLECs AT&T and WorldCom) both in the business market and via UNE-P based local/LD bundles in residential. As we will discuss below UNE-P based revenue compression was a significant factor for SBC in the quarter in the consumer market.
- Revenue leakage as resold lines which are already "lost" to competitors move to UNE-P. This seems a particular problem at BellSouth were total wholesale line rose 9% YoY but within that UNE-P rose 190% going from 26% of the total to 68%.
- Cable telephony substitution for wireline (largely through AT&T Broadband and Cox on a country wide basis). SBC's exposure to major AT&T clusters (notably in Chicago and California) has put it at the forefront of this battle.
- Broadband substitution (both DSL/cable modem) for second lines. BellSouth reported their residential second line count of 2.1MM was down 10.6% YoY in 2Q. For SBC secondary residential lines totaled 6.25MM at the end of the period and were down 8.7% YoY and 3.8% QoQ, indicative of similar pressures.

2002



- Direct wireless for wireline substitution (we suspect a marginal but growing in impact). In the past SBC has referenced some of its own analysis which has identified a surprisingly high percentage of units in new MDUs without a landline phone. In our work on wireless pricing in the US with our colleague Linda Mutschler, we have drawn attention to the impact of substitution and also the fact that price points in wireless make basic access line substitution viable (where, unlike this analyst, you have acceptable wireless coverage!).
- Loss of access MOU and thus access revenues as LD traffic migrates to wireless. We recently addressed this in a separate note with our colleague Linda Mutschler. For BellSouth the trend was sustained into 2Q with access MoU (which exclude wireless on which much lower per minute interconnect payments are received) falling 10.4% YoY and 2.0% QoQ. SBC reports access MoU inclusive of wireless ... but still saw a 5.2% YoY decline in 2Q. In SBC's case however MoU were up 3.3% QoQ.

Going back to the numbers for the quarter, in Table 2 we provide an analysis for SBC's key 2Q P&L metrics vs. our estimates:

| Table 2: SBC 2Q Earnings Variance | | | |
|-----------------------------------|--------------|---------|---------|
| (SMM) | 2Q '02A | 2Q '02E | Act/Est |
| Voice | 6,275 | 6,659 | -5.8% |
| Wireless subscriber | 1,959 | 2,060 | -4.9% |
| Long distance | 588 | 589 | -0.1% |
| Data | 2,425 | 2,451 | -1.1% |
| Directory | 1,067 | 984 | 8.4% |
| Other | <u>736</u> | 612 | 20.3% |
| Total Operating Revenues | 13,050 | 13,354 | -2.3% |
| Operations and support | 7,578 | 7,740 | -2.1% |
| Depreciation and amortization | <u>2,465</u> | 2,476 | -0.4% |
| Total Operating Expenses | 10,043 | 10,216 | -1.7% |
| EBITDA | 5,472 | 5.614 | -2.5% |
| EBITDA Margin | 41.9% | 42.0% | |
| Operating Income | 3,007 | 3,138 | -4.2% |
| Interest Expense | 322 | 400 | -19.5% |
| Equity in Net Income of Affil. | 309 | 205 | 50.7% |
| Other Income (Expense) - Net | <u>37</u> | 100 | -63.0% |
| EBT | 3,031 | 3,043 | -0.4% |
| Income Taxes | <u>1,000</u> | 1,004 | -0.4% |
| Net Income | 2,031 | 2,039 | -0.4% |
| Fully Diluted EPS | 0.61 | 0.60 | 0.7% |
| Fully Diluted Shs. Outstanding | 3,333 | 3,371 | -1.1% |

Source: Company reports and Merrill Lynch estimates

Wireline Segment

Total wireline revenues were \$9.7B in 2Q, a drop of 5.8% YoY. The wireline segment consists of both voice and data revenues; more details are given below on a product-by-product basis. Normalized EBITDA for the segment was \$4.1B, a 6.0% decrease YoY.

Looking at wireline revenue by customer segment, consumer revenue fell 1.8% YoY, while revenue associated with the business segment (including ISPs) declined 13.4% YoY – witness in particular to the geographic exposure the company has had to the tech boom/bust through its California operations.

Management, in their earnings review, stated that decreases in business revenues accounted for nearly 90% of the YoY wireline revenue decline, reflecting the sluggish economy. However, sequentially, consumer revenue declines, driven by the revenue compression inherent in increased UNE-P losses, accounted for more than 100% of total revenue wireline decline, as economic impacts on the business market gave way to UNE-P based competitive impacts on consumer as a swing factor in the results.

■ Non-LD Voice

Revenue from the non-LD voice segment fell 7.7% YoY to \$6.3B in 2Q. Management attributed approximately 75% of the seasonally adjusted revenue decline to retail lines lost to UNE-P based offers primarily from WorldCom's MCI unit and AT&T. The reduction was also due in part to continued wireless and Internet substitution, both of which have lowered consumer reliance on traditional wireline telephony and contribute to the secular factors we have discussed impacting the group, not just SBC.

Access lines at SBC have been declining since 2Q 01. In 2Q 02, access lines fell by 781K to 58.3MM. On a YoY basis, access lines declined by 3.8%. This is the lowest level of lines seen since 2Q 1998.

Retail consumer access lines fell 5.9% YoY to 33.2MM, while retail business lines decreased 6.6% YoY to 20.1MM. In contrast, wholesale access lines rose 41.1% YoY to 4.4MM, illustrating the transition described above.

SBC has mounted a three-pronged response to the UNE-P based retail losses:

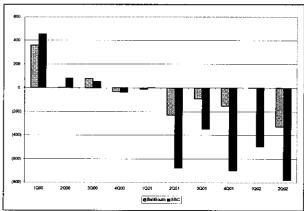
- 1. The company has worked to control costs when possible (both in operating and capital spending). Wireline cash opex fell 5.6% YoY and 1.4% QoQ, thus keeping pace with revenue declines and sustaining EBITDA margins.
- 2. Management also continues to work with regulators to develop what is sees as "fair" and cost-based UNE-P pricing and to obtain 271 relief throughout its footprint. Management noted that customer win-back rates are approximately twice as high in states where SBC can offer long distance. Needless to say when we asked AT&T Chairman Mike Armstrong on the regulatory



environment on his company's investor call he indicated that AT&T was happy with the way state regulators were moving on UNE-P rates. Further he indicated that in addition to the six states where AT&T already offers local service (four of which are SBC states!) the company is planning three more - New Jersey in 3Q and at some point Pennsylvania and, importantly for SBC, also California. We assume his enthusiasm for California reflects the UNE rate review conducted to an extent parallel with SBC's application for LD in the state. In mid-May the California PUC approved new UNE resale rates. As with all UNE rates these are complex (i.e. there are multiple components tarrifed in different ways with different rate changes per piece). But taking the key fixed local loop and port charges the combined resale rate before was \$14.58/mo. The California PUC adopted a draft decision on revised rates (the original rates having stood since 1999) taking this down 26% to \$10.75/mo. To get the full picture we would need to factor in volume sensitive charges (end office switching, tandem switching, etc) but clearly AT&T sees the outcome as consistent with its gross margin hurdle i.e. at these lower rates it can earn over 45% on a gross margin basis which is its test of whether entry into the market makes sense.

3. Finally, SBC continues to introduce bundled products in an attempt to decrease customer churn without aggressively reducing revenues. Management noted that local access/DSL was the best bundle (DSL reduces wireline churn by 75%) but that they also were happy with wireless/wireline bundles which reduced churn in each component area. They also noted that so far there had been little price discounting vs. a la carte service and they were getting good results purely from being the single provider of the differing services and adding them up on a single bill.

Chart 1: Access Line Growth, 1Q00 - 2Q02



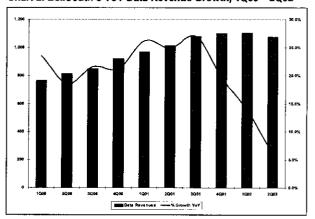
Source: Company reports

■ Data

Quarterly data revenue was up just 0.2% YoY at \$2.4B, 4.2% below our estimate of \$2.5B. Data accounted for approx. 25% of total wireline revenues. As shown in Charts 2 and 3, the rate of data revenue growth at the RBOCs has slowed dramatically. BellSouth's current 2Q YoY growth rate was 6.1%, compared to 24.9% a year ago, while as noted, SBC's was 0.2%, compared to 2Q 2001's YoY rate of 22.7%.

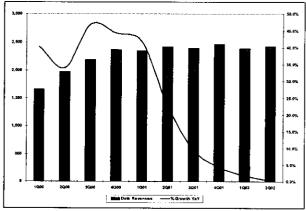
That said, SBC's 2Q DSL adds came in at 213K, 9.2% above our 195K estimate, up 156.6% from 83K a year ago. This is a strong showing for RBOC DSL adds – in fact, with adds of 187K in 1Q01, 83K in 2Q01, 150K in 3Q01, 146K in 4Q01, and 183K in 1Q02, it is the strongest add numbers seen at SBC over the past year and a half. This stands in contrast to 2Q DSL adds at BellSouth, which were weak vs. our estimates, at 74K, a 5.1% YoY decrease from 78K a year ago. We had estimated BellSouth adds of 143K for 2Q.

Chart 2: BellSouth's YoY Data Revenue Growth, 1Q00 - 2Q02



Source: Company reports

Chart 3: SBC YoY Data Revenue Growth, 1Q00 - 2Q02



Source: Company reports



■ LD Voice

2Q Revenue from LD voice in the wireline segment was \$588MM, a 2.2% decline YoY and the lowest seen for the past nine quarters for which we have normalized data.

SBC still anticipates getting 271 approval in California before year-end. (See our noted dated May 28th for our comments on this issue.) 271 relief in that state would give SBC access to an 18MM access line LD market, and would allow it to provide LD services in 2/3 of its footprint. Management does not anticipate receiving 271 approval in any other of its states before 2003.

Cingular Wireless

SBC's wireless segment revenue (from the Cingular joint venture) totaled \$2.24B in 2Q, a 2.6% YoY increase. (Confusingly, wireless subscriber revenue in the full P&L was \$1.96B, up 5.9%). Normalized segment wireless EBITDA at SBC was \$703MM, flat sequentially and down 6.6% YoY. EBITDA margins were 31.3%, a 940 bp decline.

Network costs rose given that total MOU were up 40% with volume also pushing up roaming and LD expenses. Higher gross post paid adds also pushed up subscriber acquisition costs and we assume the run up to service launch in New York was also a factor – although the impact of these expenses will be largely felt in 3Q given service launch on July 1st.

Wireless net adds at Cingular were 353K for 2Q, a 49.6% drop YoY. However, this exceeded our estimate of 350K by 1%. Digital post paid net ads were 619K, but growth here was offset by continued net losses of reseller and analog subs. Total period end subs of 22.2MM were up 5% YoY – revenue growth roughly matched this given flat service ARPU of \$52/month. Cingular's churn in 2Q was 2.7%, down from 2.9% in 1Q.

Cingular launched not only its voice but also its data service in New York on its GPRS network on July 1st, bringing the total percentage of the network using GPRS to 36%.

Capex Update

2Q capex at SBC (ex wireless) was \$1.7B, down 41% YoY and flat sequentially. Management lowered its 2002 capex estimate to "below \$8.0B" (compared to its prior published estimate of \$9.2B - \$9.7B).

Based on the rates of the first half annual capex would only come in at \$7B however. While capex does tend to have a year end seasonal bias we doubt, given current demand trends, that the business will improve enough to merit what amounts to a 30% higher 2H capex vs. 1H to hit the \$8B figure. Thus we assume that SBC is likely in fact to come in much lower – hence we have revised our 2002 capex estimate to \$7.5B. This amounts to 17%

capex/sales (matching this capex number with wireline capex only, not the not normalized revenues as reported by SBC to include a share of Cingular revenues.)

Management Estimate Updates

Management issued revised estimates for 2002 performance in conjunction with its earnings announcement.

They now estimate normalized EPS of \$2.26 - \$2.35. Prior management estimates were \$2.47 - \$2.51 - thus mid-point to mid-point this is a 7.4% cut ... and compares to the 9.5% estimate cut seen from BellSouth the day before.

The company increased its estimate of free cash flow before dividends to \$6.5B (\$3.0B after dividends) from prior estimates of \$5.0-5.5B (and \$1.5-2.0B). Note that the company will receive proceeds of \$917MM in 2H02 from the exercise of its Bell Canada put. (However, for the first half, net debt only fell by \$217MM from \$25.5B to \$25.3B.)

As noted above, management also lowered its 2002 capex estimate to "below \$8.0B" (compared to its prior published estimate of \$9.2B - \$9.7B).

Merrill Lynch Estimate Changes

Following SBC's 2Q earnings announcement, we have adjusted our estimates for 2002 and 2003. Our normalized (i.e. cum a proportionate Cingular contribution) revenue estimate for 2002 declines 1.8% from \$53.4B to \$52.4B, while our 2003 estimate falls from \$55.1B to \$52.9B, a 4.3% difference.

We have changed our 2002 normalized EBITDA estimate by 2.6% from \$22.4B to \$21.9B and our 2003 estimate from \$23.3B to \$22.1B, a 5.6% decrease.

Our normalized diluted EPS number declines from \$2.40 to \$2.34 for 2002, a 2.5% drop. Similarly, our 2003 normalized EPS estimate falls from \$2.51 to \$2.39, a 4.8% change.

We have decreased our ex wireless capex estimate from \$9.0B to \$7.5B in 2002 and from \$8.5B to \$7.5B in 2003. These changes represent estimate declines of 16.2% and 11.8%, respectively.

Valuation

Like BellSouth, SBC has a strong balance sheet, generates cash, is committed to a share buy back and trades on a low double digit P/E. However on our revised 5 year CAGR projections for revenue, EBITDA and EPS are modest at 1.6%, 1.7% and 4.5% respectively, from a 2002 base. (The equivalent numbers for BellSouth are 1.6%, 1.3% and 4.2% respectively.) So ... how do we value this?

With investors having reduced faith in the E in P/E calculations generally across the market, we have



assessed valuation by taking the dividend yield and adding on the "yield" resulting from a stock buyback. We estimate the latter by dividing the dollar value of the buyback by the number of shares outstanding, then dividing that by the current stock price. The sum of these two yield calculations results in a notional total yield (part recurring, part not of course), which we then compare to 30 yr. bond yields on similarly rated telecoms. Note this is somewhat like a free cash flow (FCF) yield but crucially we only pay attention to FCF that finds its way into the hands of shareholders rather than accounting/notional FCF that might not.

If both the BellSouth and the SBC buybacks are considered (\$2B over 18 months at BellSouth, approx. \$2B over one year at SBC), the total notional cash return yield on the equity of these securities is 6.9% and 7.0%, respectively, as seen in Table 3.

SBC and BellSouth's notional cash return yield just falls short of the comparable yield on AA-rated corporates of approx. 7.1% (the 30-year treasury plus 180 basis points). This suggests that equity investments in both SBC and also BellSouth should have limited downside around current levels – i.e. even if SBC and BellSouth show only very limited growth going forward, the cash flow returned to shareholders is in line with that available from its debt securities (which do not "grow" at all.).

Verizon Communications, however, has equity with a total yield of 5.6%, lower than comparable A-rated corporates of approx. 8.6% (the 30-year treasury plus 325 basis points) — offsetting this in Verizon Communications' case is its cash return to shareholders yield is only its regular yield of 5.6%. This has the great the advantage of being a recurring obligation that management "must" meet.

Table 3: Comparative Yield Analysis

| Company | Credit Rating (Moody's) | Dividend Yield | Stock Buyback | Total Yield |
|------------------------|-------------------------|-------------------|------------------|----------------|
| BeliSouth* | Aa3 | 3.6% | 3.3% | 6.9% |
| SBC | Aa3 | 4.4% | 2.6% | 7.0% |
| AA 30 yr. Corp. Bond | | | | 7.1% |
| Verizon Communications | A1 | 5.6% | 0.0% | 5.6% |
| A 30 yr. Corp. Bond | | | | 8.6% |

Source: Merrill Lynch estimates

BellSouth's \$2B stock buyback assumes that \$1.3B of common stock is bought back over a 12 month period, with the remainder repurchased in the following six months. Bond yields are based on current spread-to-treasury levels.

| Table 4: SBC Summary | FCF | , | |
|----------------------|--------------|--------|--------|
| | 2001 | 2002E | 2003E |
| Free Cash Flow | ₩. | / | * |
| EBITDA | 19,589 | 19,090 | 19,112 |
| less Capex | -11,189 | -7,536 | -7,506 |
| less Interest | -1,213 | -802 | -422 |
| less Dividends | -3,484 | -3,603 | -3,600 |
| less Taxes | -3,904 | -3,432 | -3,488 |
| Bell Canada Put | 0 | 917 | 2,383 |
| Other | <u>-12</u> 9 | -1,500 | -1,000 |
| FCF | -329 | 3,133 | 5,481 |
| Parent Net Debt | 18,285 | 15,152 | 9,671 |

Source: Company reports and Merrill Lynch estimates

| Table : | 5: SBC | Summary | P&L |
|---------|--------|---------|-----|
|---------|--------|---------|-----|

| (\$MM) | 2001 | 2002E | 2003E |
|-----------------------------|--------|--------|----------------|
| Voice | 26,675 | 25,141 | 24,387 |
| Wireless subscriber | 7,930 | 8,305 | 8,679 |
| Long distance | 2,435 | 2,350 | 2,937 |
| Data | 9,631 | 9,746 | 10,129 |
| Directory | 4,468 | 4,513 | 4,558 |
| Other | 3,163 | 2,316 | 2,189 |
| Total Operating Revenue | 54,302 | 52,370 | 52,880 |
| Operations Expense | 32,010 | 30,518 | 30 ,793 |
| Depreciation & Amortization | 9,859 | 9,906 | 10,018 |
| Total Operating Expenses | 41,869 | 40,424 | 40,811 |
| EBITDA | 22,292 | 21,852 | 22,087 |
| EBITDA Margin | 41.1% | 41.7% | 41.8% |
| Operating Income | 12,433 | 11,946 | 12,069 |
| Interest Expense | 1,758 | 1,342 | 992 |
| Equity Income | 803 | 922 | 700 |
| Other Income (Net) | 788 | 203 | 175 |
| EBT | 12,266 | 11,729 | 11,952 |
| Income Taxes | 4,293 | 3,870 | 3,944 |
| Net Income | 7,973 | 7,859 | 8,008 |
| EPS (Fully Diluted) | \$2.35 | \$2.34 | \$2.39 |
| Fully Diluted Shs. Out (MM) | 3,396 | 3,357 | 3,352 |

Source: Company reports and Merrill Lynch estimates



| Intermediate-Term Ratings Distribe Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
|---|----------------------------|-----------------|-----------------------------|-------|---------|
| Strong Buy | 17 | 9.88% | Strong Buy | 7 | |
| Buy | 44 | 25.58% | v , | | 11.11% |
| Neutral | 77 | 44.77% | Buy | 1/ | 26.98% |
| Reduce/Sell | 77 | | Neutral | 26 | 41.27% |
| | 34 | 19.77% | Reduce/Sell | 13 | 20.63% |
| Intermediate-Term Ratings Distribu | ition: Global Group (as of | f 05 July 2002) | | ,, | 20.0070 |
| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
| Strong Buy | 521 | 17.82% | Strong Buy | | |
| Buy | 1048 | 35.84% | • , | 228 | 25.94% |
| Neutral | | | Buy | 339 | 38.57% |
| | 1163 | 39.77% | Neutral | 267 | 30.38% |
| Reduce/Sell | 193 | 6.60% | Reduce/Sell | 45 | 5.12% |

anies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months.

[VZ, SBC] MLPF&S or an affiliate was a manager of a public offering of securities of this company within the last 12 months.

[VZ] MLPF&S was a manager of the most recent public offering of securities of this company within the last three years.

[VZ, SBC] MLPF&S or an affiliate has received compensation for investment banking services from this company within the past 12 months.

[BLS, VZ, SBC] MLPF&S or an affiliate expects to receive or intends to seek compensation for investment banking services from this company within the

In Germany, this report should be read as though Merrill Lynch has acted as a member of a consortium which has underwritten the most recent offering of securities during the last five years for companies covered in this report and holds 1% or more of the share capital of such companies.

The analyst(s) responsible for covering the securities in this report receive compensation based upon, among other factors, the overall profitability of Merrill Lynch, including profits derived from investment banking revenues.

OPINION KEY: Opinions include a Volatifity Risk Rating, Intermediate-Term and Long-Term Investment Ratings and an Income Rating. VOLATILITY RISK RATINGS, indicators of potential price fluctuation, are: A - Low, B - Average, C - Above Average, D - High. INTERMEDIATE-TERM INVESTMENT RATINGS, indicators of expected total return force appreciation plus yield) within the 12-month period from the date of the initial rating, are: 1 - Strong Buy (minimum 20% - more for High Risk securities); 2 - Buy (minimum 10%); 3 - Neutral (0.10 (sp. 4) - Reduce/Sell (negative return); 6 - No Rating, INCOME RISM TRATINGS, indicators of tundamental company factors demonstrating potential total return for the 3-year period from the date of the initial rating, are: 1 - Strong Buy (aggregate minimum 40%); 2 - Buy (ag



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19 July 2002

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Sprint FON

Revenue a bit Light; Beats on EPS – But Balance Sheet and Cash Flow Outlook Better

Reason for Report: 2Q Review

NEUTRAL

Long Term NEUTRAL

Price: \$12.26

| Estimates (Dec) | 2001A | 2002E | 2003E |
|---|--------|--------|--------|
| EPS: | \$1.22 | \$1.40 | \$1.40 |
| P/E; | 10.0x | 8.8x | 8.8x |
| EPS Change (YoY): | | 14.8% | 0.0% |
| Consensus EPS: (First Call: 15-Jul-2002) | | \$1.34 | \$1.37 |
| Q3 EPS (Sept): | \$0.28 | \$0.36 | |
| EBITDA (\$B) | \$4.3 | \$4.6 | \$4.7 |
| EV/EBITDA | 3.7x | 3.4x | 3.3x |
| Cash Flow/Share: | \$3.98 | \$4.33 | \$4.39 |
| Price/Cash Flow: | 3.1x | 2.8x | 2.8x |
| Dividend Rate: | \$0.50 | \$0.50 | \$0.50 |
| Dividend Yield: | 4.1% | 4.1% | 4.1% |

Opinion & Financial Data

| Investment Opinion: | D-3-3-8 |
|---------------------------------------|------------------|
| Volatility Risk: | High |
| Mkt. Value / Shares Outstanding (mn): | \$10,947 / 892.9 |
| Book Value/Share (Jun-2002): | \$13.26 |
| Price/Book Ratio: | 0.92x |
| ROE 2002E Average: | 9.1% |
| LT Liability % of Capital: | 24.4% |
| Next 5 Year Dividend Growth: | 0.0% |

Stock Data

| 52-Week Range: | \$24.60-\$8.80 |
|-----------------------------|----------------|
| Symbol / Exchange: | FON / NYSE |
| Options: | Phila |
| ational Ownership-Vickers: | 77.I% |
| okers Covering (First Call) | 20 |

ML Industry Weightings & Ratings**

| Strategy; | Weighting | Rel. | to | Mkt.: |
|-----------|-----------|------|----|-------|
|-----------|-----------|------|----|-------|

| Income: | In Line | (18-Jun-2001) |
|------------------------------------|---------------|---------------|
| Growth: | In Line | (18-Jun-2001) |
| Income & Growth: | Overweight | (25-Oct-2000) |
| Market Analysis; Technical Rating: | Below Average | |

^{**}The views expressed are those of the macro department and do not necessarily coincide with those of the Fundamental analyst.

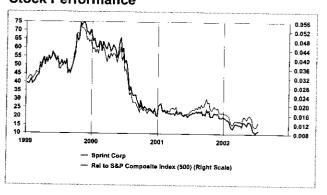
Investors should assume that Merrill Lynch is seeking or will seek investment banking or other business relationships with the companies in this report.

Refer to important disclosures at the end of this report. Merrill Lynch Global Securities Research & Economics Group Global Fundamental Equity Research Department

Highlights:

- On July 18th Sprint FON reported 2Q02 results. Thanks primarily to continued aggressive cost control normalized EPS of \$0.36 (+9% YoY), beat our estimate (and consensus) of \$0.3 by 9%.
- On a reported GAAP basis, EPS were \$0.12 down 64% YoY. The difference was due to a write down Earthlink investment due a decline in market value.
- Revenues fell 8% YoY, from \$4.3B to \$3.97B, which was 2% below our estimate of \$4.0B. EBITDA increased by 5.6% YoY from \$1.1B to \$1.2B, and was 3.8% better than our estimate of \$1.1B as cost controls continued to pay off.
- Net debt allocated to FON fell a surprising \$0.63B to \$4.74B. This appears to be due to the settlement of a \$400MM tax receivable and a net \$187MM favorable move in intergroup receivables/payables.
- While it will be hard for FON stock to avoid being caught in the PCS backwash near term the fact remains that the valuation of the business remains underpinned by the 8MM access line ILEC, limiting the downside in our view.

Stock Performance





2Q02 Earnings Summary

On July 18th Sprint FON reported 2Q02 results.

Thanks primarily to continued aggressive cost control, Sprint FON reported recurring EPS of \$0.36 up 9% YoY, which beat our estimate (and consensus) of \$0.33 by 9%.

On a reported GAAP basis, EPS was \$0.12 down 64% YoY. The difference was due to a \$0.27/share write-down of the company's Earthlink investment due to a decline in market value – partly offset by a \$0.03/share gain on a \$40MM (pre-tax value) customer contracts sale. Revenues fell 8% YoY, from \$4.3B to \$3.97B, which was 2% below our estimate of \$4.0B.

EBITDA increased by 5.6% YoY from \$1.1B to \$1.2B, and was 3.8% better than our estimate of \$1.1B.

Given Sprint's pre-announcement in June and its July 12th announcement that it was restructuring the Global Markets Group and eliminating 1,200 positions, we were somewhat surprised by the earnings performance during 2Q, particularly at the EPS level. Note that with respect to the recent downsizing announcement, management indicated that the changes are planned to be finished by the third quarter and that, net of severance costs, the effect on 2002 earnings should be negligible.

As we pointed out following the first quarter results (and several times previously), interest expense was surprising at \$15MM positive for the quarter, while we were estimating a \$0 expense - either would have been an impressive performance given net debt at the period end of \$4.74B. This interest issue contributed a further \$0.01/share of variance to the reported results versus our EPS expectation. This odd result is a function of how interest expense is allocated between the two tracking stocks, FON and PCS. While we have discussed this issue in the past, we include a paragraph from Sprint Corp's recent 10K as a reminder on the allocation of interest expense between the two tracking stocks and thus the manner in which a company with substantial net debt on its balance sheet (\$4.7B at end June) can see no net interest charge!

> Financing activities for the groups are managed by Sprint on a centralized basis. Debt incurred by Sprint on behalf of the groups is specifically allocated to and reflected in the financial statements of the applicable group. Interest expense is allocated to the PCS Group based on an interest rate that is substantially equal to the rate it would be able to obtain from third parties as a direct or indirect wholly owned Sprint subsidiary, but without the benefit of any guarantee by Sprint or any member of the FON Group. That interest rate is higher than the rate Sprint obtains on borrowings. The difference between Sprint's actual interest rate and the rate charged to the PCS Group is reflected as a reduction in the FON Group's interest expense

and totaled \$288 million in 2001, \$237 million in 2000 and \$168 million in 1999. These amounts are reflected in the "Intergroup interest charge" on the Consolidated Statements of Operations.

Source: Sprint Corporation 2001 10-K

Net debt allocated to FON fell a surprising \$0.63B to \$4.74B. This appears to be due to the settlement of a \$400MM tax receivable (resulting from the economic stimulus package) and a net \$187MM favorable move in inter-group receivables/payables. We were initially confused to see Sprint FON long term debt fall \$1.0B as part of this process (which also saw cash fall by \$388MM over the quarter down to just \$46MM). However, the decline is not truly a function of long term debt (in the sense of a bond or instrument with a more than 12 month maturity) but due to pay down of commercial paper (CP) previously reclassified as a long term obligation. (confusing since CP is obviously all due in less than year by definition — but there you have it.)

| Table 1: 2Q02 Actual versus Estimates | | | | |
|---------------------------------------|--------------|---------------|--------------------|--|
| \$MM | 2Q02 ML Est. | 2Q02A | Act/Est | |
| Local Communications | 1,550 | 1,535 | -1.0% | |
| Voice | 1,520 | 1,468 | -3.4% | |
| Data | 503 | 467 | -7.1% | |
| Internet | 257 | 247 | -3.8% | |
| Other | <u>80</u> | <u>93</u> | 16.3% | |
| Global Markets | 2,360 | 2,275 | -3.6% | |
| Prod Distr & Directory | 332 | 366 | 10.3% | |
| Intercompany Eliminations | <u>-200</u> | <u>-211</u> | -5.5% | |
| Total Revenue | 4,042 | 3,965 | -1. 9 % | |
| Costs of Services and Prod | 1,946 | 1,836 | -5.7% | |
| SG&A | 968 | 959 | -0.9% | |
| Depreciation and amortization | <u>652</u> | <u>659</u> | 1.1% | |
| Total Operating Expenses | 3,566 | 3,454 | -3.2% | |
| EBITDA | 1,127 | 1,170 | 3.8% | |
| EBITDA Margin | 27.9% | 29.5% | n/a | |
| Operating Income | 475 | 511 | 7.5% | |
| Interest Expense (benefit) | 0 | -15 | n/a | |
| Other Income (Expense) - Net | <u>3</u> | -7 | -333.3% | |
| EBT | 478 | 519 | 8.5% | |
| Income Taxes | <u>182</u> | 201 | 10.6% | |
| Income from Continuing Ops | 296 | 318 | 7.3% | |
| Preferred div received (paid) | 2 | 1 | -50.0% | |
| NI to common from cont ops | 298 | 319 | 6.9% | |
| Reported EPS | \$0.33 | \$0.36 | 6.7% | |
| One-time Items | n/a | \$(0.24) | | |
| Total | n/a | \$0.12 | | |
| Fully Diluted Sh Out (MM) | 891.5 | 893.4 | 0.2% | |

Source: Merrill Lynch estimates and Company reports



Local Division

Local Division revenues were down 1.1% YoY at \$1.54B, and essentially in-line with our estimate. A 3.8% rise in local service revenue was offset by declines in both LD and other revenues. In total, the local division generated a solid EBITDA margin of 50.1%, vs. 47.8% in 2Q01. Based on the performance of other comparable (albeit smaller) ILECs such as Citizens Utilities and Century Tel (2002 1Q EBITDA margins 52.0%, 55.6% respectively) there could be modest scope to improve further margins from here. However, with approx. one third of its line in larger markets (Las Vegas), we sense the limits of margin gains are close to being reached.

Local services revenue (as noted above) increased 3.8% in 2Q02, primarily due to robust vertical services revenue growth. Vertical service revenue grew by 19% YoY and now represents just under 20% of local service revenue.

Network access revenue was down 1.2% YoY, as a 22% increase in special access revenue was offset by declines in switched access revenues. Switched access MOUs continued to decline (we expect to see similar trends for the all of the ILECs following on from some sharp sequential access MOU falls in 1Q for the likes of BellSouth) and were down 5% YoY for 2Q02. Long distance revenue declined by 12% YoY in quarter due to a combination of a 6% decline in total LD minutes and a lower yield per minute.

As wireless MOUs continue to increase (i.e. Nextel reported average MOUs of 650 for the quarter up 12% YoY) consumer LD minutes must remain pressured. Sprint management noted that since many wireless rate plans came with very large bundles of off-peak/weekend minutes, customers regard wireless calls at these times as essentially "free" and were cutting back landline usage as a result. In the first quarter, management apportioned the decline in usage per subscriber to about 75% wireless and 25% email. We assume that the trends were similar in this quarter as well.

In addition, Sprint FON finished the second quarter with 8.2MM access lines, which represented a YoY decline of 1.3%. Consumer lines (70% of total) declined 1% primarily due to the loss of second lines, while business lines declined by 2% due mainly to competition and technology substitution factors. The company still expects total 2002 access line losses to reach a similar level to that experienced in 2001. Thus no sign of let up from either the economic or industry structural pressures there, (i.e. the net of cyclical and secular factors stays the same – take you pick as to the mix ... we estimate at least half of the fall off in ILEC access line growth from prior healthy economy levels is secular in nature.)

Capex in the local group for the second quarter and first six months were \$276MM and \$547MM, respectively. We are still looking for full year capex of \$1.3B for the local group. Management still expects spending to pick up in 2H02 due mainly to spending for the packet conversion process.

Global Markets Division (GMD)

Due to the continued weakness in all segments of GMD, revenues fell YoY by 11.3% (2.9% sequential decrease) to \$2.3B – so below our estimate of \$2.4B. GMD EBITDA was \$334MM compared to \$287MM in 2Q 2001.

Voice revenues fell 13.7% YoY to \$1.47B – and fell QoQ by 4.4% and were lower than our estimate of \$1.52B. As of the end of the second quarter, consumer made up 25% of the revenue in the voice segment of Sprint's GMD unit. Due to continued pressure from wireless and email substitution consumer volumes declined by 9% QoQ and 20% YoY. In turn, consumer voice revenues were down 9% QoQ and 25% YoY with stable pricing. Sprint saw static customer numbers however, further confirming the view that we are seeing significant traffic shifts to other technologies.

Business voice revenues increased by 1% QoQ while volume was down modestly at about the same rate. YoY business voice revenue decreased by 12%, however business minutes were up by 18%. Business makes up roughly 50% of Sprint FON's GMD voice revenues. Finally YoY affiliate volume growth was up 63% due primarily to growth in MOUs at Sprint PCS. The disconnect between 18% voice volume growth and 12% revenue decline is due to the fact that 1/3 of voice traffic is driven by affiliated companies, primarily Sprint PCS, which provides large volumes (of low price) wholesale minutes for the Sprint FON network.

Sprint's management also indicated that voice pricing for new business contracts has stabilized and has not changed materially over the past six months on a retail basis. That said they added the familiar caveat that with contract terms of up to three years the work through of the mark to market effect of prior contract renewals remained a lengthy process, with revenues also impacted by mix shift factors not just pricing alone. And while retail pricing may have stabilized, wholesale pricing remains aggressive.

Working off of Sprint FON's restated numbers, the Internet segment experienced a 2% YoY decline in revenues. Dedicated IP grew by 3% QoQ, and management attributed the slowdown in growth to increased disconnects from bankrupt customers. YoY dedicated IP revenues grew by 14%, while dial up was flat sequentially.

On the enterprise data front, revenues decreased by 4% YoY and QoQ. However management noted that pricing looks to be stabilizing in several areas and has even taken prices up in frame relay in the existing base – indicating that demand/volume is now the issue. Revenue for ATM service increased 20% YoY but were flat sequentially. ATM pricing, however, remains competitive as prices continue to decline at a low teens rate. The private line business remains challenged as revenue declined at high single digit rate for the quarter YoY.



Management was very wary in commenting on the WorldCom situation noting that inquiries (and proactive Sprint marketing) had increased ... but that, with a lag of say six months from initial lead to close for a large contract, revenue impacts would not be seen quickly. Interestingly, Level (3), on its investor conference call, noted that inquiry activity they were seeing seemed largely related to customers seeking insurance policy type information, and that they suspected that the percentage of such leads that converted to real business would be quite low. Level (3) also noted, in the context of its capacity sales business, that the WorldCom debacle, if anything, had made enterprise buyers even more cautious about doing anything with anybody!

Capex

Sprint FON's capex for the quarter was \$539MM, including \$220MM for global markets and \$276MM for the local division. These numbers were well below our expectations as we were looking for \$340MM and \$335MM for the quarter in the Local and Global Markets divisions, respectively.

Management Targets

Management made modest (upwards) changes to its 2002 operating estimates.

The company continues to expect total revenues to decline by a low-mid single digit amount, with a 2002 EBITDA est. of \$4.7B up from the previous est. of \$4.6B – so even though revenue remains soggy they have become more optimistic about the impact of cost reductions given success on that front YTD.

FON changed its own EPS ests. modestly as previously management was looking for 2002 EPS approaching \$1.40, now it is saying that 2002 EPS will be at least \$1.40. These expectations are built on an assumption of a slow economic pick up through the balance of the year.

Management again lowered its 2002 capex estimate from \$2.7B to \$2.6B, which includes \$1.3B for Local (unchanged) and \$1.0B for Global (down from \$1.2B).

Importantly, management also stated a target a new target for FCF in 2002 at the FON level of \$1B up from its previous forecast of \$500MM – with capex down \$100MM and EBITDA up \$100MM we assume the other big factor here is not a recurring improvement in the FCF outlook but the receipt of the \$400MM payment in respect of the economic stimulus package that was received in 2Q.

On the subject of the Directories sale, management indicated presentations to interested parties had been made and a decision would be made in August on the sale. We suspect that, given the improved cash flow outlook for Sprint Corp as a whole, pressure to make the sale has fallen. While non-core in some respects, this is nonetheless a high RoA/strong cash flow contributor and management may well conclude that, absent renewed

financing pressures, offers they receive are less attractive than keeping the asset in house. In this respect, we regard them to be in a very different situation than Qwest where the sale of that companies much larger (\$1B EBITDA) directories assets is totally a forced issue in our view—linked to the drive to meet their 4.0x year end debt/EBITDA covenant and also the need to refinance \$3.4B of loan coming due in May 2003.

ML Forecast Revisions

Given several puts and takes, we are raising our EPS estimate for 2002 by \$0.05/share from \$1.35 to \$1.40. Of the \$0.05/share increase, approximately \$0.02/share is from our somewhat heroic assumption that Sprint FON's interest expense will a positive \$35MM for the remainder of 2002, which is consistent with 2Q02 results. (Well, seems heroic, but as before the inter tracker accounting works wonders here.) Previously, we had been looking for zero interest expense – as noted above this is a function of the interest allocation in the group and can not be simplistically projected as a function of debt levels and interest rates as they apply to Sprint FON alone.

We are also raising our 2003 EPS estimate by 4.5% from \$1.34 to \$1.40, which reflects an assumption of sustained low/no interest expense in the Sprint FON P&L and also continued cost saving flow throughs.

Given the lower than expected capex in 2Q02 and revised company projections, we are also lowering our capital expenditure estimates for 2002 and 2003. Our 2002 estimate goes from \$2.7B to \$2.6B and our 2003 estimate goes from \$2.8B to \$2.5B

Following our increase in our 2002 EBITDA estimate and reduction of capex estimate, we are also raising our 2002 free cash flow estimate from \$565MM to \$819MM.

Balance Sheet issues

Even with the continued uncertainty at PCS (where growth is clearly slowing), we believe that Sprint Corp will generate enough FCF (over 2003 and beyond) and has enough flexibility (via \$648MM cash on hand, its \$5B credit facilities, possible Directories sale and related undrawn \$700MM facility etc., and the unutilized PCS A/R program) to meet debt coming due. (\$115MM in the balance of 2002 and \$1.3B in 2003 then \$1.1B in 2004.)

Note that of the two credit facilities one (364 day/\$3B) expires in August 2002, the other in August 2003 (5 year/\$2B). Management is negotiating to secure a new revolving credit facility – however the total amount will likely me much less than \$5B since the original facilities primary purpose was to back up the group's CP program.

On the A/R receivables front, the \$500MM PCS facility is as yet undrawn and has no ratings triggers attached ... but the \$695MM drawn under the FON program is at risk of forced early repayment through a rating



trigger should Sprint's credit rating fall below investment grade. Management said it was negotiating to remove this trigger – a process it expected to have concluded within four weeks.

All that said, any renewed perception of deteriorating performance could well mean that, besides ongoing capex cuts, other actions could be taken to reinforce cash flows. Specifically, we had noted in the past that the \$0.50/share FON dividend (costing approx. \$450MM) is an obvious target ... we have recently seen both Qwest and WorldCom eliminate their dividends, and of course AT&T announced it was sharply reducing its dividend at the back end of 2000. (In our view, were dramatic actions needed, a dividend cut would be a better option for shareholders than a for example a forced sale of assets.)

While it has proved hard for FON stock to avoid being caught in any PCS backwash near term (please refer to our note advocating the recombination of the PCS and FON trackers dated June 25th), the fact remains that the valuation of the business remains underpinned by the 8MM access line ILEC, limiting the downside in our view.

We arrive at this conclusion by assuming that FON's access lines are worth 65% of where recent private market transactions for access line have been done. ILEC acquisitions have recently been executed at an average of approx. \$3,100 per line. Assuming that FON's lines are worth only \$2,000 per line, this would yield an enterprise value for FON of \$16.6B.

Subtracting off \$5.4B of allocated net debt yields a share price of \$12.60. This assumes that the rest of Sprint's operations (primarily Global Markets and Directory) are worth zero. Adding in just the directory business will get the valuation closer to \$15/share assuming that directory is worth 8x our 2002 EBITDA estimate of \$250MM.

Looking at the valuation another way, one could adjust Sprint FON's P&L to reflect the \$4.7B of debt it carries, which assuming a 7.5% interest rate would take our 2002 EPS estimate of \$1.40 down to approximately \$1.15, and apply an RBOC multiple of 12x. This would yield a share price of \$13.80, or about 9% above the current share price. (This is not entirely fair – in that arguably the abnormally low interest FON "pays" is de facto the "real" cost of debt offset by a credit from PCS for the "rent" of the stronger FON balance sheet.)

That said in current edgy capital markets risks remain high ... as it is the Corporations credit is only a notch above junk. A downgrade would raise funding costs and also lead to up to \$695MM of accelerated debt repayments according to the discussion on the earnings call. As already noted, a continued (indeed heightened) balance sheet focus is likely to constrain capex across the group ... but at the possible cost to growth investments. Hence we are keeping our Neutral intermediate and long term opinions.

Accounting Footnote

Please refer to our reports of April 12th and April 15th which review what have become too hot accounting topics – options and pensions. Across the telecom space these show that Sprint is not at all impacted by pension concerns – it does not have the large credits of the RBOCs. However this is not true in our view of options. According to data taken from the 2001 10-K had options been expensed, FON EBITDA margins would have been 100bp lower than reported, net income \$144MM lower and EPS thus would have been \$0.17 lower. The FON options impacts in 2000 would have been to cut normalized EPS by 15%, with an 8% cut implied for 1999 – i.e. material relative to overall EPS in all three years in our view.

| Table 2: Summary P&L and F | Table 2: Summary P&L and FCF | | | | | | |
|-------------------------------|------------------------------|-------------|--------|--|--|--|--|
| \$MM | 2001 | 2002E | 2003E | | | | |
| Local Communications | 6,247 | 6,166 | 6,257 | | | | |
| Global Markets | 9,916 | 9,194 | 8,958 | | | | |
| Prod Distr & Directory | 1,762 | 1,436 | 1,465 | | | | |
| Intercompany Eliminations | <u>-1,001</u> | <u>-827</u> | -827 | | | | |
| Total Revenue | 16,924 | 15,968 | 15,852 | | | | |
| Cost of Services and Products | 8,278 | 7,568 | 7,435 | | | | |
| SG&A | 4,384 | 3,800 | 3,699 | | | | |
| Depreciation & Amortization | 2,450 | 2,625 | 2,674 | | | | |
| Total Operating Expenses | 15,112 | 13,993 | 13,808 | | | | |
| EBITDA | 4,262 | 4,600 | 4,718 | | | | |
| Operating Income | 1,812 | 1,975 | 2,044 | | | | |
| Interest Expense | 55 | -51 | 0 | | | | |
| Other Income (Net) | <u>-8</u> | <u>-4</u> | -5 | | | | |
| EBT | 1,749 | 2,022 | 2,039 | | | | |
| Income Taxes | 671 | 779 | 795 | | | | |
| Preferred Divs | 7 | <u>5</u> | 4 | | | | |
| Net Income | 1,085 | 1,248 | 1,248 | | | | |
| EPS (Fully Diluted) | 1.22 | 1.40 | 1.40 | | | | |
| Fully Diluted Sh Out (MM) | 888 | 893 | 893 | | | | |
| Free Cash Flow | | | | | | | |
| Net Income | 1,085 | 1,248 | 1,248 | | | | |
| + Dep & Arnort | 2,450 | 2,625 | 2,674 | | | | |
| - Dividends | -437 | -447 | -447 | | | | |
| - Сар Ехр | -5,295 | -2,557 | -2,537 | | | | |
| +-Other* | 1,420 | -50 | 200 | | | | |
| = Free Cash Flow | <u>-777</u> | <u>819</u> | 1,138 | | | | |
| Net Debt | 5,163 | 4,344 | 3,206 | | | | |

Source: Merrill Lynch estimates and company reports

* Other in the FCF calculation for 2002 includes \$402MM income tax receivable from the economic stimulus package.



| Intermediate-Term Ratings Distribution: | | | ily 2002) | | |
|--|------------------------------|----------------------------|-----------------------------|-------|---------|
| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
| Strong Buy | 17 | 9.88% | Strong Buy | 7 | 11.11% |
| Buy | 44 | 25.58% | Buy | 17 | |
| Neutral | 77 | 44.77% | Neutral | 17 | 26.98% |
| Reduce/Sell | 3.4 | 19.77% | Reduce/Sell | 26 | 41.27% |
| | OI / IA / | | Reduce/Self | 13 | 20.63% |
| Intermediate-Term Ratings Distribution: Coverage Universe | Giobai Group (as oi Count | ' 05 July 2002) Percent | Inv. Banking Relationships* | C | D |
| Strong Buy | 521 | 17.82% | • | Count | Percent |
| Buv | 1048 | · · | Strong Buy | 228 | 25.94% |
| · · · | | 35.84% | Buy | 339 | 38.57% |
| Neutral | 1163 | 39.77% | Neutral | 267 | 30.38% |
| * Companies in respect of which MI DERS as a | 193 | 6.60% | Reduce/Sell | 45 | 5.12% |

Companies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months.

[FON] MLPF&S or an affiliate was a manager of a public offering of securities of this company within the last 12 months.

[FON] MLPF&S or an affiliate has received compensation for investment banking services from this company within the past 12 months.

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In Germany, this report should be read as though Merrill Lynch has acted as a member of a consortium which has underwritten the most recent offering of securities during the last five years for companies covered in this report and holds 1% or more of the share capital of such companies.

The analyst(s) responsible for covering the securities in this report receive compensation based upon, among other factors, the overall profitability of Merrill Lynch, including profits derived from investment banking revenues.

OPINION KEY: Opinions include a Volatility Risk Rating, Intermediate-Term and Long-Term Investment Ratings and an Income Rating. VOLATILITY RISK RATINGS, indicators of potential price fluctuation, are: A - Low, B - Average, C - Above Average, D - High. INTERMEDIATE-TERM INVESTMENT RATINGS, indicators of expected total return (price appreciation plus yield) within the 12-month period from the date of the initial rating, are: 1 - Strong Buy (minimum 20% — more for High Risk securities): 2- Buy (minimum 10%); 3 - Neutral (10 (10%); 4 - Reduce/Self (negative return); 6 - No Rating. INCOME RINNESTMENT RATINGS, indicators of fundamental company factors demonstrating potential total return for the 3-year period from the date of the initial rating, are: 1 - Strong Buy (aggregate minimum 40%); 2 - Buy (aggregate minimum 20%, - Reduce/Self (negative return); 6 - No Rating, INCOME RINNESTMENT RATINGS, indicators of protential cash dividends, are: 7 - same/higher (dividend considered to be secure); 8 - same/lower (dividend not considered be secure); and 9 - pays no cash dividend.

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1 August 2002

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Verizon Communications

Estimates Pared Back – Non-Recurring Charges of \$4.2B

Reason for Report: 2Q Earnings Review

NEUTRAL*

Long Term
NEUTRAL

| Price: | \$33.00 |
|--------|---------|
|--------|---------|

| Estimates (Dec) | 2001A | 2002E | 2003E |
|---------------------------|--------|--------|--------|
| EPS (GAAP): | \$0.14 | \$0.64 | \$3.13 |
| P/E (GAAP): | 235.7x | 51.6x | 10.5x |
| EPS (Normalized): | \$3.00 | \$3.08 | \$3.13 |
| P/E (Normalized): | 11.0x | 10.7x | 10.5x |
| EPS Change (YoY): | | 2.7% | 1.6% |
| Consensus EPS: | | \$3.08 | \$3.19 |
| (First Call: 22-Jul-2002) | | | |
| Q3 EPS (Sept.): | \$0.75 | \$0.79 | |
| EBITDA (\$B) | \$29.5 | \$29.5 | \$30.1 |
| EV/EBITDA | 5.4x | 5.4x | 5.4x |
| Cash Flow/Share: | \$8.04 | \$7.92 | \$7.98 |
| Price/Cash Flow: | 4.1x | 4.2x | 4.1x |
| Dividend Rate: | \$1.54 | \$1,54 | \$1.54 |
| Dividend Yield: | 4.7% | 4.7% | 4.7% |

Opinion & Financial Data

| Investment Opinion: | B-3-3-7 | _ |
|---------------------------------------|------------------|---|
| Volatility Risk: | Average | |
| Mkt. Value / Shares Outstanding (mn): | \$89,958 / 2,726 | |
| Book Value/Share (Mar-2002): | \$10.51 | |
| Price/Book Ratio: | 3.1x | |
| ROE 2002E Average: | 3.7% | |
| LT Liability % of Capital: | 49.5% | |
| Est. 5 Year EPS Growth: | 3.9% | |
| Next 5 Year Dividend Growth: | 0.0% | |
| 2002E ROTC: | 12.5% | |
| 2001 Cash Realization Rate: | 1.5x | |

Stock Data

52-Week Range: \$55.99-\$26.01
Symbol / Exchange: VZ / NYSE
Options: Chicago
Institutional Ownership-Vickers: 47.8%
Brokers Covering (First Call): 22

ML Industry Weightings & Ratings**

| Strategy- | Weighting | Dαl | to Mbt . | |
|-----------|-----------|-----|----------|--|

Income: Overweight (25-Oct-2000)
Growth: In Line (25-Oct-2000)
Income & Growth: Overweight (25-Oct-2000)

Market Analysis; Technical Rating: Below Average (13-Feb-2002)

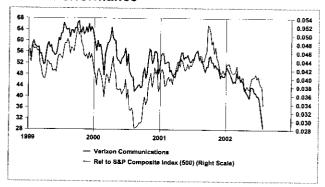
Investors should assume that Merrill Lynch is seeking or will seek investment banking or other business relationships with the companies in this report.

Refer to important disclosures at the end of this report. Merrill Lynch Global Securities Research & Economics Group Global Fundamental Equity Research Department

Highlights:

- On July 31st, Verizon Communications reported 2Q normalized EPS of \$0.77, 1.3% below our est. of \$0.78 and equal to consensus. This performance was flat YoY (although down 4.9% when adjusted for FAS 142.) GAAP EPS, however, were d\$0.78, 105.3% greater than 2Q01's loss per share of d\$0.38.
- On a GAAP basis, earnings included \$4.2B in non-recurring after-tax charges. These charges include \$2.4B related to the decision not to reintegrate Genuity into the company. Also included was \$183MM related to WorldCom exposure – the largest such write off recognized by an RBOC following WorldCom's bankruptcy filing.
- We have adjusted our estimates for 2002 as follows: revenue increases 0.2% from \$67.4B to \$67.5B and EPS declines from \$3.13 to \$3.08, a 1.6% drop. Our 2002 EBITDA estimate remains the same, at \$29.5B.
- As we have already noted in 2Q comments on SBC and BellSouth, RBOC yields suggest these stocks should now find a valuation base after recent sharp falls. But we remain concerned that valuations at the low end of historic ranges are here to stay and thus refrain from adopting a more conclusively upbeat view.

Stock Performance



^{*}Intermediate term opinion last changed on 11-Apr-2002.

^{**}The views expressed are those of the macro department and do not necessarily coincide with those of the Fundamental analyst.



2Q Earnings Summary

On July 31st, Verizon Communications reported 2Q normalized EPS of \$0.77, which was 1.3% below our estimate of \$0.78 and equal to consensus. This performance was flat YoY. GAAP EPS, however, were d\$0.78, 105.3% greater than 2Q 2001's loss of d\$0.38.

2001 normalized EPS reflect \$0.04 of goodwill amortization no longer required under FAS 142. Adjusting for this "underlying normalized" EPS were down 4.9% YoY. (i.e. we add back amortized goodwill to prior year EPS to get an apples to apples comparison.)

On a GAAP basis, earnings include \$4.2B in non-recurring after-tax charges related mostly to investment write-downs and severance charges. We provide additional details on the charges (and also 1Q charges) in Table 1.

For 2Q the charges include \$2.4B related to the decision not to reintegrate Genuity into the company. (See out note of July 25th: "Cutting The Genuity Cord"). Whilst a painful decision for management, we think that it was the right one from the perspective of protecting Verizon Communications shareholder value.

Also included in the \$4.2B charge is \$183MM related to a WorldCom write off, which is the largest such charge taken by an RBOC following WorldCom's bankruptcy filing. SBC noted an \$84MM additional provision that was added back to reported earnings as one of a number of normalizing items. Verizon Communications classified its WorldCom exposure as a non-recurring item and reflected it explicitly as a non-recurring charge. BellSouth was the most conservative of the three in presenting the WorldCom

Table 1: Verizon Communications Earnings Reconciliation

bad debt as an expense that was a) not explicitly disclosed and b) left in BellSouth's normalized EPS, i.e., as a defacto normal cost of doing business.

In addition to the charges discussed above, Verizon Communications again took \$0.02/share of "transition charges". We understand this relates to the BellAtlantic/GTE transaction ... which closed two years ago. Going forward, we will count any further merger related costs from this deal in our own normalized EPS numbers

Summarizing the quarter, operationally we note that 2Q revenues were \$16.8B, down 1.8% YoY and equal to our estimate. EBITDA for the quarter was \$7.4B close to our estimate of \$7.34B and down 3% YoY. The limited EBITDA "damage", despite tough conditions and the revenue decline, was a result of continued cost control, a forte of the Verizon Communications management team we believe; cash operations and support expenses fell 1.0% YoY overall and by 5.3% for the core telco.

In Table 2 we show a reconciliation of 2Q normalized P&L actuals vs. our estimates. Within the limits of normal forecasting error, we concluded pretty much everything at the operating level was "in line". However, a somewhat better contribution from Verizon Wireless in the mix meant we underestimated the minority interest line item by 9%. Also we underestimated the sharp pick up in equity accounted income from associate companies.

| | - | | | | | | | |
|---|------------|-------|------------|-------|------------|-------|------------|------|
| | 2Q02 | | 2Q01 | | 1H02 | | 1H01 | |
| (\$MM, except per share data) | Net Income | EPS | Net Income | EPS | Net Income | EPS | Net Income | EPS |
| Reported Earnings (Loss) | -2,115 | -0.78 | -1,021 | -0.38 | -2,616 | -0.96 | 551 | 0.20 |
| Non-recurring items: | | | | | • | | ••• | 0.20 |
| Mark-to-market adjustment | | | | | | | | |
| financial instruments | 8 | 0.00 | 37 | 0.01 | 11 | 0.00 | 151 | 0.06 |
| Sales of assets, net | 0 | 0.00 | -3 | 0.00 | -116 | -0.04 | -3 | 0.00 |
| Transition costs | 57 | 0.02 | 162 | 0.06 | 109 | 0.04 | 250 | 0.09 |
| Severance benefits | 475 | 0.17 | 0 | 0.00 | 475 | 0.17 | 0 | 0.00 |
| Cumulative effect of accounting change | 0 | 0.00 | 0 | 0.00 | 496 | 0.18 | 182 | 0.07 |
| Investment-related charges | | | | | | 0 | 102 | 0.07 |
| CANTV | 0 | 0.00 | 0 | 0.00 | 1,400 | 0.51 | 0 | 0.00 |
| MFN | 0 | 0.00 | 1,136 | 0.42 | 436 | 0.16 | 1,136 | 0.42 |
| CTI | 0 | 0.00 | 0 | 0.00 | 190 | 0.07 | 0 | 0.00 |
| Genuity | 2,443 | 0.89 | 0 | 0.00 | 2,443 | 0.89 | 0 | 0.00 |
| Telus | 430 | 0.16 | 0 | 0.00 | 430 | 0.16 | Ö | 0.00 |
| C&W | 201 | 0.07 | 862 | 0.32 | 201 | 0.07 | 862 | 0.32 |
| Other | 231 | 0.08 | 928 | 0.34 | 231 | 0.08 | 928 | 0.34 |
| NorthPoint settlement | 114 | 0.04 | 0 | 0.00 | 114 | 0.04 | 0 | 0.00 |
| WorldCom exposure and other special items | 251 | 0.09 | 0 | 0.00 | 260 | 0.10 | 0 | 0.00 |
| Corningo hoforo Non recumina hama | | | | | | 3.10 | Ū | 0.00 |

Source: Company Reports

Earnings before Non-recurring Items

2.101

0.77

4,064

1.49

4,057

1.49

0.77

2,095



| Table 2: 2Q Incremental Revenue | | | | | | |
|---------------------------------|--------|--------|---------|--|--|--|
| \$MM | 2Q01 | 2Q02 | Revenue | | | |
| Core Wireline | 9,207 | 8,603 | (604) | | | |
| Data | 1,746 | 1,865 | 119 | | | |
| Domestic Wireline | 10,953 | 10,468 | (485) | | | |
| Domestic Wireless | 4,383 | 4,738 | 355 | | | |
| International | 828 | 754 | (74) | | | |
| Information Services | 984 | 936 | (48) | | | |
| Other | (9) | (61) | (52) | | | |
| Total Operating Revenues | 17,139 | 16,835 | (304) | | | |

Source: Company reports

| Table 3: 2Q02 ML Estimate Vs. Actual | | | | | | | |
|--------------------------------------|--------------|---------|---------|--|--|--|--|
| \$MM | 2Q '02A | 2Q '02E | Act/Est | | | | |
| Landline local service | 5,230 | 5,268 | -0.7% | | | | |
| Wireless subscriber | 4,369 | 4,219 | 3.6% | | | | |
| Network access | 3,418 | 3,433 | -0.4% | | | | |
| Long distance service | 777 | 834 | -6.8% | | | | |
| Information | 936 | 999 | -6.3% | | | | |
| Other | <u>2,105</u> | 2,005 | 5.0% | | | | |
| Total Operating Revenues | 16,835 | 16,757 | 0.5% | | | | |
| Operations and support | 9,433 | 9,417 | 0.2% | | | | |
| Depreciation and amortization | 3,356 | 3,227 | 4.0% | | | | |
| Total Operating Expenses | 12,789 | 12,644 | 1.1% | | | | |
| EBITDA | 7,402 | 7.340 | 0.8% | | | | |
| EBITDA Margin | 44.0% | 43.8% | 0.4% | | | | |
| Operating Income | 4,046 | 4,113 | -1.6% | | | | |
| Interest Expense | 798 | 775 | 3.0% | | | | |
| Minority interest | -337 | -309 | 8.9% | | | | |
| Equity in NI of Affiliates | 240 | 145 | 65.5% | | | | |
| Other Income (Expense) - Net | 4 | 65 | -93.8% | | | | |
| EBT | 3,155 | 3,239 | -2.6% | | | | |
| Income Taxes | 1,060 | 1,104 | -4.0% | | | | |
| Net Income | 2,095 | 2,135 | -1.9% | | | | |
| EPS | 0.77 | 0.78 | -1.9% | | | | |
| Fully Diluted Sh Out (MM) | 2,733 | 2,732 | 0.0% | | | | |

Source: Merrill Lynch estimates and company reports

A Tough Quarter for the RBOCs

On Monday July 21st, we changed our long-term opinions on SBC (B-3-3-7; \$27.57), BellSouth (BLS; B-3-3-7; \$26.15), and Verizon Communications from Buy to Neutral following disappointing results at BellSouth. We felt the BellSouth results were a harbinger of similar developments at the other RBOCs and they pointed to sustained adverse secular trends that would restrain growth at all the RBOCs to very modest levels going forward, even following an economic rebound. SBC and now Verizon Communications' 2Q results have done nothing to suggest this view was misplaced.

We have identified the key challenges facing the RBOCs growth ambitions as being:

- Soft enterprise demand as IT spending remains constrained and adversely impacts data growth plus the business access line count as companies downsize. Verizon Communications mentioned that in the general small/medium business segment revenue was declining "moderately" with a worse affect on the larger enterprise segment worse affected.
- Retail line loss to facilities and non-facilities based telcos (increasingly just via those large CLECs AT&T and WorldCom) both in the business market and via UNE-P based local/LD bundles in residential. As we will discuss below, UNE-P based revenue compression in the consumer market was a significant factor for SBC and BellSouth in 2Q - less so Verizon Communications. Verizon Communications has not experienced the same growth in wholesale as SBC and BellSouth in recent quarters. Wholesale lines for Verizon Communications grew by 0.5% QoQ and actually declined by 0.8% YoY, while at BellSouth wholesale lines grew by 10.7% QoQ and 47.1% YoY and at SBC wholesale lines grew by 14.9% QoQ and 41.1% YoY. Wholesale lines now represent 6.1% of Verizon Communications' total access lines, 7.6% of SBC's lines and 6.6% of BellSouth's lines. The revenue pressure that Verizon Communications is currently feeling on the wholesale side is thus not due to increased wholesale lines but rather due to the lowering of UNE-P rates in several states (see point immediately below). For example, over the past year, according to data provided by the National Regulatory Research Institute (NRRI), UNE-P rates have been lowered on average by 24.3% in New York and 42.4% in New Jersey – and by 7.8% on a weighted average basis for the nation as a whole.
- Revenue leakage as resold lines which are already "lost" to competitors move to UNE-P. This seems a particular problem at BellSouth were total wholesale line rose 9% YoY but within that UNE-P rose 190% going from 26% of the total to 68%. As noted above, Verizon Communications saw revenue compression from this trend but it has seen UNE-P lines at more than 50% of total resale/UNE-P lines since as far back as 2Q 2001. For 2Q Verizon Communications' UNE-P lines increased by only 110K (5%) to 2.369MM, resold lines declined by 99K (7%) to 1.296MM. YoY the change was a 276K (13%) UNE-P increase and a 302K (19%) decline in resold lines. Like SBC, Verizon Communications management used their investor conference call as an opportunity to comment on current regulatory policy in this area - noting that in their view over time UNE rates would need to rise. However, they have not gone as far as SBC who have said that low UNE-P rates are causing them to review capex in some areas - SBC sees no merit in constructing facilities that can then be reused by competitors below (as they see it) a fair measure of cost.



- Cable telephony substitution for wireline (largely through AT&T Broadband and Cox on a country wide basis). SBC's exposure to major AT&T clusters (notably in Chicago and California) has put it at the forefront of this battle. We note that Cox also reported 2Q results on July 31st. Their weekly run rate of cable telephony adds was 4,764 for the quarter taking total telephony subs to 578K – which we assume equates to approx. 750K access lines at about 1.3 lines/home. At present just under 60% of Cox's basic service customers have homes that are telephony ready, but of those, telephony penetration is now running at a worrying (from a telco perspective!) 15.6%. At its current run rate, we estimate Cox will add about 600K telephone lines in 2002 (i.e., it will capture, on its own, 0.5% of total US residential access lines.)
- Broadband substitution (both DSL/cable modem) for second lines. BellSouth reported their residential second line count of 2.1MM was down 10.6% YoY in 2Q. For SBC secondary residential lines totaled 6.25MM at the end of the period and were down 8.7% YoY and 3.8% QoQ, indicative of similar pressures. Verizon Communications has not provided equivalent disclosure although at the 1Q stage they provided graphical information suggesting a similar trend in terms of accelerated second line loss. Again its worthwhile counterpointing Verizon's experience with that of Cox. Essentially all Cox's 6.25MM basic customers are high speed internet access ready, and Cox added 114K high speed modem subs in 2Q on a net basis. Verizon Communications added 32% more (150K) DSL subs on a base of est. 33MM DSL ready lines. Verizon Communications has told us that in cases where customers with second lines take DSL as many as 3 out of 4 give up the second line. We assume cable modems have a similar impact ... but with a straight revenue loss to the RBOC.
- Direct wireless for wireline substitution (we suspect a marginal but growing in impact). In the past SBC has referenced some of its own analysis which has identified a surprisingly high percentage of units in new MDUs without a landline phone. In our work on wireless pricing in the US with our colleague Linda Mutschler, we have draw attention to the impact of substitution and also the fact that price points in wireless make basic access line substitution viable (where, unlike this analyst, you have acceptable wireless coverage!). Verizon Communications announced that it was moving forward with its counter attack - a single wireline/wireless bill will be available to Verizon Communications customers nationwide by year end. Further in August the company will launch a bundle that encompasses local telephone, LD, DSL and wireless. (In the initial bundle plan the discount seems to being borne by the wireline side of the house - LD will be available at 20% of the standalone rate for example.) That said wireless pricing continues to promote substitution -

- please see Linda's report dated July 31st ("What Are They Thinking?") on the latest moves in US wireless pricing arena. In that report she highlights how recent plans have shifted to adding more to the "anytime" bucket. (e.g., new Voicestream plans in California and Nevada with 1,000 anytime minutes for \$39.99/mo plus unlimited weekends and long distance.)
- Loss of access MOUs and thus access revenues as LD traffic migrates to wireless. We also recently addressed this in a note with our colleague Linda Mutschler. Verizon Communications' MOU from other carriers and CLECs fell 7.4% YoY to 66.55B this was down 0.8% QoQ. For BellSouth the trend was also sustained into 2Q with access MoU (which exclude wireless on which much lower per minute interconnect payments are received) falling 10.4% YoY and 2.0% QoQ. SBC reports access MoU inclusive of wireless ... but still saw a 5.2% YoY decline in 2Q. In SBC's case however MoU were up 3.3% QoQ.

2Q Segment Review

■ Wireless

2Q wireless service revenues at Verizon Communications were \$4.4B, up 8.1% YoY. Service ARPU fell by 1% to just under \$49. Cash expense per subscriber fell 2% to under \$30, the lowest in the industry. EBITDA for the wireless segment was \$1.7B, an 8.1% YoY rise.

Verizon Communications had 2Q net wireless adds of 723K, 106.6% above our estimated 350K (though Verizon Communications' number includes 68K subs that were added in 1Q 2002). This brings current subs to 30.3MM, up 8.5% YoY. A summary of Verizon Communications' 2O adds can be seen in Table 4.

Table 4: Verizon Wireless 2Q Net Add Analysis

| (000) | Start Subs | Monthly Churn | Churn Loss | Gross Add | Net Add | End Subs |
|-----------|---------------|------------------|---------------|--------------|------------|-------------|
| Retail | 27,800 | 2.0% | 1,668 | 2,768 | 1,100 | 28,900 |
| Wholesale | 1,777 | 7.1% | -377 | 0 | -377 | 1,400 |
| Total | 29,577 | 2.3% | 2.041 | 2.764 | 723 | 30.300 |

Source: Company reports, Merrill Lynch estimates

The **Price Communications**' acquisition has been approved by Price shareholders and is expected to close in early August. Among the properties that Price will acquire will be about 500K customers. These will be evident in the 3Q total sub number.

■ Local

Revenues from the local service segment fell 5.7% YoY to \$5.2B. Similar to SBC and BellSouth, Verizon Communications saw both the number of access lines and the MOUs decline YoY – in its case, by 3.3% and 7.4%, respectively. 2Q access lines totaled 60.4MM;



minutes of use were 66.6B. These reflect industry issues we have already reviewed, including lower revenues on the wholesale side related to continued financial problems at the CLECs, lower second line usage among consumers as Internet access via cable and DSL rises, and wireless and Internet substitution seen at the consumer level. This said, UNE-P and resale lines declined 0.8% YoY to 3.7MM – as noted above Verizon Communications has seen very different trends (i.e. relatively less painful ones of late) in this area form its peers. In part this reflect the fact that Verizon Communications' markets have typically been more competitive and for longer.

■ Long Distance

LD subs increased by 800K, in line with our estimate. YoY, LD adds have increased 50.6%. Revenues associated with long distance service increased 2.5% YoY to \$777MM, but were down very slightly on a sequential basis from \$779MM in 1Q. Verizon Communications saw a net "win back" in customers for intra-LATA long distance for the third consecutive quarter. Customer winbacks during 2Q totaled 477K.

Verizon Communications had received 271 approval to begin offering long distance service in Maine and New Jersey in June, bringing the number of states in which it offers such services to 44, or 80% of its local phone service customers. Additionally, Verizon Communications has 271 applications pending at the FCC for New Hampshire and Delaware. Approval for these states is expected during 3Q. The company hopes to have completed filing its 271 applications by year-end.

■ DSL and Data Services

DSL adds at Verizon Communications were stable – 150K, up 25% YoY and in line with 1Q -- but well below our 282K estimate. Total DSL subs are now 15MM

Revenues associated with data services were \$1.9B for the quarter, a 6.8% increase YoY. \$1.7B of this was due to data transport revenues, which increased 7.5% YoY. Data revenues rose just under 1% QoQ.

■ International

Verizon Communications' international segment felt similar pressures as fellow RBOC BellSouth, though to a lesser degree. Segment revenues declined 8.9% to \$754MM. We believe this is due largely to continued Latin American exposure via its CANTV investment in Venezuela, an economy whose exchange rate has fallen 34% since the beginning of the year. CTI in Argentina, an economy whose exchange rate has fallen 78% over the same period, did not impact revenues having been deconsolidated. Prior year normalized numbers have been back adjusted to remove CTI's contribution. In addition, on the international side Verizon Communications took further write downs related to its Telus and Cable & Wireless assets, as illustrated in Table 1.

Strengthening the Financial Profile

Verizon Communications continued to make progress reducing its debt and improving its free cash flow during 2Q. Verizon Communications reduced its net debt position by \$2.94B in 2Q to \$57.6B and its commercial paper (CP) by \$2.2B in the quarter to \$8.5B. The company closed on a \$7B credit facility during 2Q to back up its CP lines.

Management expects to continue reducing debt and terming out its CP. It targets CP of \$7B at YE. Cash investments and short term investments totaled \$3.7B at the end of 2Q. Management plans to use a portion of this liquidity to pay off CP as it comes due.

That said end 2Q short term debt, in all forms totaled a substantial \$17.0B - vs. long term debt of \$44.6B i.e. 28% of gross debt of \$61.6B is due with 12 months. Given current skittish credit markets these seems an uncomfortable proportion to us. Besides a further reduction in CP, we assume management will seek to make use of organic cash flow and the sizeable disposal proceeds expected in 2H (approximately \$2.8B after tax from access line sales to Alltel and Century Tel) to address this. Further it seems advisable, as market conditions permit, to issue longer term paper that would allow for a debt maturity profile that better matches the funding of Verizon Communications' assets with the long tem nature of the returns from those assets.

Over 1H Verizon Communications has been able to take net debt down from \$61.35B to \$57.50B, a \$3.75B reduction. However of this \$1.5B was due to the part return of the deposit left with the FCC for NextWave spectrum. Thus on an purely internal basis FCF (as seen through the simple lense of the decline in net debt) over the half was \$2.25B so just over \$1B/Q on average.

This was aided by 2Q capex of \$3.1B, 33.1% lower than in 2Q 2001 – YTD capex is \$5.51B, 40% down on the prior year figure. The company's capex guidance implies 2H spend of approx. \$7.75B, a \$2.25B (41%) increase in 1H levels that (coincidentally) exactly equates to the internally generated 1H net debt reduction figure cited above. Frankly we think 2H capex is likely to come in lower than management estimates yet again. This if only because in the current environment showing positive cash flow is a top priority, plus weak demand means that on the wireline side capex/sales can surely be taken down to well below historic average levels.

That said the Price Communications acquisition will increase capex by about \$200MM in 2H, and management anticipates that spending will rise in 2H relative to 1H to some degree due to other factors. In 2H, Verizon Communications will be spending on DSL, systems expansion, and real estate. In addition, certain timing differences exist that will effect 2H capex levels relative to those seen in 1H. We project 2002 capex to fall 29% YoY from \$17.4B in 2001 to \$12.4B.



Vodafone Put Update

Verizon Communications used its investor call as an opportunity to discuss the \$20B put option that Vodafone holds in the Verizon Wireless partnership.

This put is exercisable in two phases of \$10B each. The first can be exercised during the period of July 2003 – July 2004 and (if Verizon Communications takes on the put rather than the partnership) is payable in either Verizon Communications parent stock or cash. The second is exercisable over the July 2005 – July 2007 period, and Vodafone has the right to be paid \$7.5B of the \$10B in cash or assumed debt. The put is in value terms i.e. it does not cover a fixed number of shares. Call us for more details if you need them.

We thought the following excerpt from the liquidity discussion in Vodafone's 20-F was interesting. It hints at their view towards the put option:

Put option agreement. As part of the agreements entered into upon the formation of Verizon Wireless, the Company entered into an Investment Agreement with Verizon Communications, formerly Bell Atlantic Corporation, and Verizon Wireless, formerly the Cellco Partnership. Under this agreement, dated 3 April 2000, the Company has the right to require Verizon Communications or Verizon Wireless to acquire interests in the partnership from the Company with an aggregate market value of up to \$20 billion between July 2003 and July 2007. This represents a further potential source of liquidity to the Group.

Source: 2002 Vodafone 20-F (Sentence in bold is our highlight.)

We note that Vodafone's non-compete clause in US wireless does not apply if their stake drops to below 20%

Management's Estimate Changes

Management updated its 2002 estimates, unsurprisingly revising most key metrics downwards:

- The revenue growth estimate was reduced from 0 -1% growth to -1% to 0.
- Management estimates 2002 EPS will be in the range of \$3.05 - \$3.09, compared to prior estimates of \$3.12 - \$3.17.
- Finally, the company reduced its capex estimate for 2002 from \$14B - \$15B to \$13B - \$13.5B.

Outside their formal discussion of high level metrics management noted that net pension and post retirement benefit expense would benefit EPS by \$0.32 in 2002. In our detailed pension study (April 15th: "Making Sense of Pensions") we identified the 2001 net credit as \$0.49/share. However what we had not taken into account was that figure was gross of capitalization – after capitalizing expenses

(and in this case a credit) the actual pension credit/port retirement benefit expense flowing through the 2001 P&L was apparently \$0.41/share. Thus the adverse variance bearing absorbed in 2002 appears to be \$0.08/share. That said, we remain concerned that a combination of a lower return on plan assets assumption (Verizon Communications is in the middle of the RBOC pack at (9.25% - but all now look too high in our view) and lower plan asset values themselves (especially when offset against stable to rising pension related service and interest costs) will exert further downward pressure on this item into 2003.

Merrill Lynch Estimate Changes

Following Verizon Communications' 2Q earnings announcement, we have adjusted our estimates for 2002 and 2003:

- Our revenue estimate for 2002 rises 0.2% from \$67.4B to \$67.5B, while our 2003 estimate increases from \$68.4B to \$68.7B, a 0.4% difference.
- We have maintained our 2002 normalized EBITDA estimate of \$29.5B and lowered our 2003 estimate from \$30.3B to \$30.1B, a 0.7% decrease.
- Our normalized diluted EPS number declines from \$3.13 to \$3.08 for 2002, a 1.6% drop. Similarly, our 2003 normalized EPS estimate falls from \$3.27 to \$3.13, a 4.3% change. (These are much more modest changes than we made to the EPS projections for SBC and BellSouth.)
- We have decreased our capex estimate from \$12.9B to \$12.4B in 2002 and from \$12.7B to \$12.0B in 2003. These changes represent estimate declines of 3.4% and 5.5%, respectively.

Valuation

We have already noted, commenting on their respective 2Q numbers, that both BellSouth and SBC have a strong balance sheets, generates cash, and are committed to a share buy backs. Both trade on a low double digit P/Es. (12.8x and 11.8x 2002 normalized EPS, respectively.)

Verizon Communications is the most leveraged of the RBOCs (current net debt/EBITDA of 2.0x vs. 1.2x at BellSouth and 1.2x at SBC). Further of gross debt of \$61.6B at end June, 27.5% (\$17.0B) is due within 12 months. That said with a payout ratio in line with SBC and higher than BellSouth, Verizon Communications likewise stands on a modest P/E and offers a well above average yield, the best of the trio in fact.

Conclusion – is the stage is set for stabilization in all of these stocks after dramatic sell offs year to date? Well – we agree with the stabilization thesis ... but remain concerned that valuations at the low end of historic ranges are here to stay and thus refrain from adopting a more conclusively upbeat view



Note that for Verizon Communications on our revised 5 year CAGR projections for revenue, EBITDA and EPS are modest at 1.6%, 1.8% and 3.9% respectively, from a 2002 base. (The equivalent numbers for SBC are 1.6%, 1.7% and 4.5% respectively, for BellSouth 1.6%, 1.3% and 4.2% respectively.)

So ... how do we value these apparently "bond-like" companies? With investors having reduced faith in the E in P/E calculations generally across the market, we have recently assessed valuation by taking the dividend yield and adding on the "yield" resulting from a stock buyback. We estimate the latter by dividing the dollar value of the buyback by the number of shares outstanding, then dividing that by the current stock price. The sum of these two yield calculations results in a notional total yield (part recurring, part not of course), which we then compare to 30 yr. bond yields on similarly rated telecoms. Note this is somewhat like a free cash flow (FCF) yield but crucially we only pay attention to FCF that finds its way into the hands of shareholders rather than accounting/notional FCF that might not.

If both the BellSouth and the SBC buybacks are considered (\$2B over 18 months at BellSouth, approx. \$2B over one year at SBC), the total notional cash return yield on the equity of these securities is 2.6% and 2.2%, respectively, as seen in Table 5. Given its higher leverage and near term agenda of paying down debt we make no assumptions about buy backs at Verizon Communications. Verizon Communications' unadjusted dividend yield is 4.7%

SBC's notional cash return yield equals that of the comparable yield on AA-rated corporates of approx. 6.1% (the 30-year treasury plus 160 basis points), while BellSouth falls slightly short of this, at 5.5%. We suggested in previous 2Q reports that equity investments in both SBC and also BellSouth should have limited downside current levels – i.e. even if SBC and BellSouth show only very limited growth going forward, the cash flow returned to shareholders is in roughly line with that available from its debt securities (which do not "grow" at all).

Verizon Communications, however, has equity with a total yield of 4.7%, lower than comparable A-rated corporates of approx. 7.9% (the 30-year treasury plus 345 basis points) – offsetting this in Verizon Communications' case is its cash return to shareholders yield is solely through its regular yield of 4.7%. This has the great the advantage of being a recurring obligation that management "must" meet.

| Table 5: Comparative Yield Analysis | | | | | | | | |
|---|----------------------------|-------------------|------------------|---------------------|--|--|--|--|
| Company | Credit Rating (Moody's) | Dividend Yield | Stock Buyback | Total Yield | | | | |
| BellSouth* | Aa3 | 2.9% | 2.6% | 5.5% | | | | |
| SBC | Aa3 | 3.9% | 2.2% | 6.1% | | | | |
| AA 30 yr. Corp. Bond Verizon Communications A 30 yr. Corp. Bond | A 1 | 4.7% | 0.0% | 6.1% 4.7% | | | | |

Source: Merrill Lynch estimates

BellSouth's \$2B stock buyback assumes that \$1.3B of common stock is bought back over a 12 month period, with the remainder repurchased in the following six months. Bond yields are based on current spread-to-treasury levels.

Relative Price Discussion

After the end of a roller coaster results season for the RBOCs (and the telecom services group!) we thought it made sense to sit back and revisit some of the longer term trends embodied in RBOC stock prices.

In Charts 1,2 and 3 we provide relative charts for the RBOC stock prices against each other. Charts 1 and 2 show how the stock prices of Verizon Communications and SBC, back adjusted for their various mergers, have in each case materially underperformed BellSouth over the last decade.

Amongst other things this seems to us to suggest that, as we peer through the fog of many current uncertainties, the large mergers Verizon Communications and SBC have undertaken have not conclusively added shareholder value relative to the more conservative approach taken at BellSouth. And its not just a question of the mega mergers - the \$6.7B of non-recurring charges taken YTD at Verzion in large part represent investment write downs. Taking such items, and the large restructuring charges taken by BellSouth's peers as part of their merger history, the implication again is the strategic rationale for these transactions and expansion has yet to translate into superior returns and stock performance relative to a peer company with a less expansive approach. At our 2002 Global Communications Conference in March, Verizon Communications CEO Ivan Seidenberg acknowledged that his company now needed to make the powerful set of assets it had created sweat and generate higher returns.

Chart 3, Verizon Communications vs. SBC, indicates a back and forward battle of the sector giants ... but with as yet no decisive victor.

Looking forward, as we have already discussed, frankly we see it hard to differentiate between these three on the basis of projected growth rates ... as market maturity and secular competitive factors curtail overall revenue expansion opportunities.



Chart 1: 10-yr Relative Price Chart: Verizon Communications vs. BellSouth



Source: Datastream

Chart 2: 10-yr. Relative Price Chart: SBC vs. BellSouth



Source: Datastream

Chart 3: 10-yr. Relative Price Chart: Verizon Communications vs. SBC



Source: Datastream

Table 4: Verizon Communications Summary FCF

| (\$MM) | 2001 | 2002E | 2003E |
|------------------|--------|--------|--------|
| Net Income | 8,190 | 8,422 | 8,566 |
| + Dep & Amort | 13,770 | 13,215 | 13,251 |
| - Dividends | 4,168 | 4,209 | 4,209 |
| - Cap Exp | 17,371 | 12,355 | 11,966 |
| +-Other | -6,818 | -2,880 | 0 |
| = Free Cash Flow | -6,397 | 2,193 | 5,643 |
| Net Debt | 61,356 | 59,163 | 53,520 |

Source: Company reports and Merrill Lynch estimates



| Table 5: Verizon Communications Summary P&L | | | | | | | |
|---|--------|--------|--------|--|--|--|--|
| (\$MM) | 2001 | 2002E | 2003E | | | | |
| Local | 21,918 | 20,822 | 20,197 | | | | |
| Network Access | 13,379 | 13,680 | 13,680 | | | | |
| LD | 3,107 | 3,262 | 3,589 | | | | |
| Directory | 4,313 | 4,279 | 4,365 | | | | |
| Other | 23,309 | 25,481 | 26,895 | | | | |
| Total Operating Revenue | 68,025 | 67,525 | 68,726 | | | | |
| Operations Expense | 38,516 | 37,981 | 38,596 | | | | |
| Depreciation & Amortization | 13,770 | 13,215 | 13,251 | | | | |
| Total Operating Expenses | 52,286 | 51,196 | 51,848 | | | | |
| EBITDA | 29,509 | 29,544 | 30,130 | | | | |
| EBITDA Margin | 43.4% | 43.8% | 43.8% | | | | |
| Operating Income | 15,739 | 16,329 | 16,878 | | | | |
| Interest Expense | 3,299 | 3,137 | 3,050 | | | | |
| Minority Interest | -891 | -1,251 | -1,419 | | | | |
| Equity Income | 674 | 686 | 550 | | | | |
| Other Income (Net) | 441 | 79 | 20 | | | | |
| EBT | 12,664 | 12,705 | 12,979 | | | | |
| Income Taxes | 4,474 | 4,283 | 4,413 | | | | |
| Net Income | 8,190 | 8,422 | 8,566 | | | | |
| EPS (Fully Diluted) | \$3.00 | \$3.08 | \$3.13 | | | | |
| Fully Diluted Shs. Outstanding | 2,730 | 2,733 | 2,733 | | | | |

Source: Company reports and Merrill Lynch estimates



| Intermediate-Term Ratings Distribution: | | | | _ | |
|---|---------------------|-----------------|-----------------------------|-------|---------|
| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
| Strong Buy | 17 | 9.88% | Strong Buy | 7 | 11.11% |
| Buy | 44 | 25.58% | Buy | 17 | 26.98% |
| Neutral | 77 | 44.77% | Neutral | 26 | 41.27% |
| Reduce/Sell | 34 | 19.77% | Reduce/Sell | 13 | 20.63% |
| Intermediate-Term Ratings Distribution: | Global Group (as of | f 05 July 2002) | | | |
| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
| Strong Buy | 521 | 17.82% | Strong Buy | 228 | 25.94% |
| Buy | 1048 | 35.84% | Buy | 339 | 38.57% |
| Neutral | 1163 | 39.77% | Neutral | 267 | 30.38% |
| Reduce/Sell | 193 | 6.60% | Reduce/Sell | 45 | 5.12% |

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| Investment Rating Distribution: Coverage Universe | Telecommunications Group (a Count | s of 06 September Percent | 2002) Inv. Banking Relationships* | Count | Percent |
|--|--------------------------------------|------------------------------|--------------------------------------|-------|---------|
| Buy | 53 | 33.54% | Buy | 19 | 35.85% |
| Neutral | 77 | 48.73% | Neutral | 29 | 37.66% |
| Sell | 28 | 17.72% | Sell | 8 | 28.57% |
| Investment Rating Distribution: Coverage Universe | Global Group (as of 06 Septem | iber 2002) Percent | Inv. Banking Relationships* | Count | Percent |
| Buy | 1378 | 48.71% | Buy | 494 | 35.85% |
| Neutral | 1274 | 45.03% | Neutral | 310 | 24.33% |
| Sell | 178 | 6.29% | Sell | 37 | 20.79% |

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